

## Appendix to Protest under 37 CFR 1.291

part of #1

In Re:

Application of Dickens

Serial No:

09/512,592

Filing Date:

February 23, 2000

Notice of the application published on May 16, 2000

For:

Re-issue of U.S. Patent 5,806,063

Issued September 8, 1998

Based on application Serial No. 725,574

Filed October 3, 1996

Entitled: Date formatting and sorting for date spanning the turn of the certagry

Claim Charts

**DeForest** 

**DEF1-15** 

Ohms

OH1-10

Japanese Publication PUPA1-76

Shaughnessy

SH1-27

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TC 2700 MAIL ROOM

## Exhibit List

- Fig. 1 and 2 of the original application, as filed
- Dickens Exhibit A
- Claim 1 of the application, as filed
- Claim 11 of the application, as filed
- Supplemental amendment of April 1998
- Lysgaard, "The Time Bomb", IFIP TC8 Conference on Governmental and Municipal

Systems, p. 513-519, 1987 Information

- Ohms, "Computer Processing of Dates Outside the 20th Century", IBM Systems Journal, Volume 25, Number 2, 1986, pages 244-251
- Shaughnessy U.S. Patent 5,630,118; 8
- Shaw, "CAP Gemnni Tackles the Year 2000", NEWS 3X/400, June 1995, p. 30 9
- DeForest Post to comp.lang.cobol of April 24, 1995 10
- Japanese Published Application 06-103133, April 15, 1994 11
- Japanese Published Application 06-103133, April 15, 1994 Translation 12

Reissue Application	DeForest Post to comp.lang.cobol Forum of April 24, 1995
1. A method of processing symbolic	The "flat out file conversion" is a
representations of dates stored in a	processing of date data from a
database, comprising the steps of	database
providing a database with symbolic representations of dates stored therein according to a format wherein $M_1M_2$ is the numerical month designator, $D_1D_2$ is the numerical day designator, and $Y_1Y_2$ is the numerical	The four lines after "01" show use of DD, MM and YY data. The author acknowledges the time limitation of the process, this corresponds to the claimed window limitation.
year designator, all of the symbolic representations of dates falling within a 10-decade period of time;	
selecting a 10-decade window with a $Y_AY_B$ value for the first decade of the window $Y_AY_B$ being no later than the earliest $Y_1Y_2$ year designator in the database;	The selection of $Y_AY_B = 50$ carries an implicit 10 decade limitation, with 50 being "no later" as claimed.
determining a century designator $C_1C_2$ for each symbolic representation of a date in the	The century determination in the logic is substantively identical to Dickens' Exhibit A and is thus an anticipation which is should be considered as admitted by Dickens.
reformatting the symbolic representation of the date with the values $C_1C_2$ , $Y_1Y_2$ , $M_1M_2$ , and $D_1D_2$ to facilitate further processing of the dates.	The reformatting is also identical to Exhibit A and is thus an anticipation which should be considered as admitted by Dickens
database, $C_1C_2$ having a first value if $Y_1Y_2$ is less than $Y_AY_B$ and having a second value if $Y_1Y_2$ is equal to or greater than $Y_AY_B$ ; and reformatting the symbolic representation of the date with the values $C_1C_2$ , $Y_1Y_2$ , $M_1M_2$ , and $D_1D_2$ to facilitate further processing of the dates.	

ſ	Reissue Application	DeForest Post to comp.lang.cobol Forum
		of April 24, 1995
	2. The method of claim 1, wherein the	DeForest is directed to Y2K and by
	10-decade window includes the decade	definition propose a window which
	beginning in the year 2000.	includes the year 2000
	3. The method of claim 2, wherein the	DeForest explicitly describes the
	step of determining includes the step	century designators 19 and 20
	of determining the first value as 20	
	and the second value as 19.	
	4. The method of claim 1, including an	Response, p. 14 admits that sorting
	additional step, after the step of	after Y2K correction is part of the
	reformatting, of sorting the symbolic	prior art.
	representations of dates.	
	5. The method of claim 1, wherein the	The post shows the identical
ŀ	step of reformatting includes the step	reformatting, and the reference to a
l	of reformatting each symbolic	"file conversion" indicates the
	representation of a date into the	procedure is applied to each date in
	format $C_1C_2Y_1Y_2M_1M_2D_1D_2$ .	the file.
Ī	6. The method of claim 5, including an	Response, p. 14 admits that sorting
	additional step, after the step of	after Y2K correction is part of the
	reformatting, of sorting the symbolic	prior art.
2:22	representations of dates using a	
	numerical-order sort.	
	8. The method of claim 1, wherein the	The Post shows that $Y_AY_B = 50$ , i.e., $Y_B$
H	step of selecting includes the step of	is 0 (zero).
	selecting $Y_AY_B$ such that $Y_B$ is 0	
à.	(zero).	nel al
d	9. The method of claim 1, including an	DeForest's reference to a "flat out
蒷	additional step, after the step of	file conversion" inherently includes
副	reformatting, of storing the symbolic	storing the reformatted data.
[]	representation of dates and their	
4	associated information back into the	
	database.	Data bases are used for accessing and
	10. The method of claim 9, including	using the stored information, thus the
	the additional step, after the step of	manipulating is inherent.
	reformatting, of manipulating	manipulating is innerent.
	information in the database having the	
H	reformatted date information therein.	
3===	<del>;</del>	

Reissue Application	DeForest Post to comp.lang.cobol Forum of April 24, 1995
11. A method of processing dates in a database, comprising the steps of	The "flat out file conversion" is a processing of date data from a database
providing a database with dates stored therein according to a format wherein $M_1M_2$ is the numerical month designator, $D_1D_2$ is the numerical day designator, and $Y_1Y_2$ is the numerical year designator, all of dates falling within a 10-decade period of time which includes the decade beginning in the year 2000;	The four lines after "01" show use of DD, MM and YY data. The author acknowledges the time limitation of the process, this corresponds to the claimed window limitation.
selecting a 10-decade window with a $Y_AY_B$ value for the first decade of the window, $Y_AY_B$ being no later than the earliest $Y_1Y_2$ year designator in the database;	The selection of $Y_AY_B = 50$ carries an implicit 10 decade limitation, with 5 being "no later" as claimed.
determining a century designator $C_1C_2$ for each date in the database, $C_1C_2$ having a first value if $Y_1Y_2$ is less than $Y_AY_B$ and having a second value if $Y_1Y_2$ is equal to or greater than $Y_AY_B$ ;	The century determination in the logic is substantively identical to Dickens Exhibit A and is thus an anticipation which should be considered as admitted by Dickens.
reformatting each date in the form $C_1C_2Y_1Y_2M_1M_2D_1D_2$ to facilitate further processing of the dates; and	The reformatting is also identical to Exhibit A and is thus an anticipation which should be considered as admitted by Dickens
sorting the dates in the form $C_1C_2Y_1Y_2M_1M_2D_1D_2.$	Dickens admits, Response, p. 14, that sorting "after Y2K correction" is part of the prior art

Reissue Application	DeForest Post to comp.lang.cobol Forum of April 24, 1995
13. The method of claim 11, wherein the step of selecting includes the step of selecting $Y_AY_B$ .	DeForest has selected $Y_AY_B = 50$ , i.e., $Y_B$ is 0 (zero).
14. The method of claim 11, including an additional step, after the step of sorting, of storing the sorted dates and their associated information back into the database.	The indication that the author's "solution" is a "flat out file conversion" indicates that the result of the conversion is stored.
15. The method of claim 14, including the additional step, after the step of sorting, of manipulating information in the database having the reformatted date therein.	Data bases are used for accessing and using the stored information - thus manipulating database information is inherent in any database, including DeForest's.

Rei	ssue Application	Ohms, Computer Processing of dates
		outside the twentieth century, 1986
	A method of processing symbolic	Ohms describes a "date processing
	resentations of dates stored in a	method" (p. 244
data	abase, comprising the steps of	
prov	viding a database with symbolic	This data, DD, MM and YY is a classic
	resentations of dates stored	short Gregorian date, see p. 247. The
the	rein according to a format wherein	conversion function described at p.
$M_1M_2$	is the numerical month	248 works with any format which
	ignator, $D_1D_2$ is the numerical day	includes 2 digit years. Ohms
desi	ignator, and $Y_1Y_2$ is the numerical	describes the 100 year (i.e., 10-
year	r designator, all of the symbolic	decade) period of time limitation at
repi	resentations of dates falling	p.249. The ability to convert from
with	nin a 10-decade period of time;	this format to a four digit year
		format, CCYY, is described on p. 248,
		first in the paragraph describing
		windowing and in part in the next
-		paragraph which points out that the
		conversion from one file format to
		another is "trivial".
sele	ecting a 10-decade window with a	See p. 248, right hand column,-specify
	value for the first decade of the	a year as the desired starting point
	dow YAYB being no later than the	of the range - this is $Y_AY_B$ , which is
ear]	liest $Y_1Y_2$ year designator in the	no later than any year date in the
3	abase;	data base
dete	ermining a century designator C <sub>1</sub> C <sub>2</sub>	The century designation is determined
	each symbolic	by comparing the year date (Y <sub>1</sub> Y <sub>2</sub> ) with
	resentation of a date in the	$Y_AY_B$ , if the year, $Y_1Y_2$ , is greater
پن	abase, $C_1C_2$ having a first value if	then the century is the earlier one
	is less than $Y_AY_B$ and having a	and vice versa, see p. 248.
1	and value if $Y_1Y_2$ is equal to or	
	ater than YAYB ; and	
	ormatting the symbolic	The "implied century" (see p. 248,
≟ repi	resentation of the date with the	right hand column) is C <sub>1</sub> C <sub>2</sub> and
<del></del>	ues $C_1C_2$ , $Y_1Y_2$ , $M_1M_2$ , and $D_1D_2$ to	treating the date as including the
faci	ilitate further processing of the	"implied century" data is the claimed
date	es.	"reformatting", since the data
<b>=</b>		included the other parameters at the
<b>=</b>		outset.

2. The method of claim 1, wherein the 10-decade window includes the decade definition includes 3. The method of claim 2, wherein the step of determining includes the step of determining the first value as 20 and the second value as 19.  4. The method of claim 1, including an Response,	p. 14 admits that sorting correction is part of the
step of determining includes the step of determining the first value as 20 and the second value as 19.  4. The method of claim 1, including an additional step, after the step of reformatting, of sorting the symbolic representations of dates.  7. The method of claim 1, wherein the step of providing a database includes	p. 14 admits that sorting correction is part of the
4. The method of claim 1, including an additional step, after the step of reformatting, of sorting the symbolic prior art representations of dates.  7. The method of claim 1, wherein the step of providing a database includes	correction is part of the
7. The method of claim 1, wherein the step of providing a database includes	
information having a different format several different the format wherein $M_1M_2$ is the numerical month designator, $D_1D_2$ is isolated the numerical day designator and $Y_1Y_2$ "trivial"	
9. The method of claim 1, including an Ohms teac	hes that storing the ed dates can be done, see pp
10. The method of claim 9, including Data base the additional step, after the step of using the	s are used for accessing and stored information, thus the
reformatting, of manipulating manipulating information in the database having the reformatted date information therein.	ing is inherent.

Patent 5,806,063, Reissue application, Claim 1	Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]
A method of processing symbolic representations of dates stored in a database, comprising the steps of	The reference is directed at managing date keys of a data file, [Title] which is effected by processing date representations in a database, each item of data is a symbolic representation.
providing a database with symbolic representations of dates stored therein according to a format wherein $M_1M_2$ is the numerical month designator, $D_1D_2$ is the numerical day designator, and $Y_1Y_2$ is the numerical year designator, all of the symbolic representations of dates falling within a 10-decade period of time;	The unprocessed database uses two digits to represent year data, see the data in date file 1, an example is the first entry, "991203" which represents 3 <sup>rd</sup> Dec. 1999 [0003]. The text [0010 and 0011] make it clear that the date range is limited. "The reason for this is that the data file 1 does not contain the year data '2099' or '1900'.", there is a "minimum value of the year data in the 20 <sup>th</sup> century" and a "maximum value of the year data in the 21 <sup>st</sup> century" with the "threshold value" in between these two. This is only possible if the span of the data base is less than 10 decades.
selecting a 10-decade window with a $Y_AY_B$ value for the first decade of the window, $Y_AY_B$ being no later than the earliest $Y_1Y_2$ year designator in the database;	The "threshold value" or $\alpha$ corresponds to $Y_AY_B$ and it is "no later" than the earliest $Y_1Y_2$ since it is selected as between $n_0n_1$ , the minimum value of the $20^{th}$ Century date range and the lower value, $n_2n_3$ , which is the maximum value of the $21^{st}$ Century date range [0011].
determining a century designator $C_1C_2$ for each symbolic representation of a date in the database, $C_1C_2$ having a first value if $Y_1Y_2$ is less than $Y_AY_B$ and having a second value if $Y_1Y_2$ is equal to or greater than $Y_AY_B$ , and	A comparison is made between the date data, nn, and the threshold value, $\alpha$ ; if nn > $\alpha$ , the century designator "19" is used, otherwise, that is if nn $\leq \alpha$ , the other century designator, "20" is used [0015]. Note also that the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015]
reformatting the symbolic representation of the date with the values $C_1C_2$ , $Y_1Y_2$ , $M_1M_2$ , and $D_1D_2$ to facilitate further processing of the dates.	The date data, augmented with the century designator (19 or 20), is then written to key file 3; as seen there the date data has been reformatted to add the century designator.

Reissue application	Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]
2. The method of claim 1, wherein the 10-decade window includes the decade beginning in the year 2000.	The reference is directed to Y2K, i.e., the transition from the 20 <sup>th</sup> to the 21 <sup>st</sup> century and so, by definition, uses a window which encompasses the year 2000 [Object].
3. The method of claim 2, wherein the step of determining includes the step of determining the first value as 20 and the second value as 19.	Since the reference is directed at Y2K [Object] the century indicators are "19" and "20" [Constitution].
4. The method of claim 1, including an additional step, after the step of reformatting, of sorting the symbolic representations of dates.	After 4 digit year value is determined, "data sorting" is performed [Constitution].
5. The method of claim 1, wherein the step of reformatting includes the step of reformatting each symbolic representation of a date into the format C <sub>1</sub> C <sub>2</sub> Y <sub>1</sub> Y <sub>2</sub> M <sub>1</sub> M <sub>2</sub> D <sub>1</sub> D <sub>2</sub> .	Once the proper century indicator is determined, it is "appended" to the year data so as to combine the 4 digit year with month and day data [0015], this is the claimed format.
6. The method of claim 5, including an additional step, after the step of reformatting, of sorting the symbolic representations of dates using a numerical-order sort.	Once the eight digit date data (four digit year, two digit month and day) is created, the key file 3 is compiled by "sorting" [0016]. A numerical sort can be used since, the eight digit date data "now accurately reflect the time sequence" [0012].
format C <sub>1</sub> C <sub>2</sub> Y <sub>1</sub> Y <sub>2</sub> M <sub>1</sub> M <sub>2</sub> D <sub>1</sub> D <sub>2</sub> .  6. The method of claim 5, including an additional step, after the step of reformatting, of sorting the symbolic representations of dates using a numerical-order sort.	

Reissue application $ 8. \   \text{The method of claim 1, wherein the step of selecting includes the step of selecting $Y_AY_B$ such that $Y_B$ is 0 (zero).} $	Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]  The reference proposes a "threshold value" of 50 [Action] which corresponds to $Y_A$ = 5 and $Y_B$ = 0.
9. The method of claim 1, including an additional step, after the step of reformatting, of storing the symbolic representation of dates and their associated information back into the database.	The key file 3 has the restored date keys and it is part of the database [0016] to correspond to this clause.
10. The method of claim 9, including the additional step, after the step of reformatting, of manipulating information in the database having the reformatted date information therein.	The act of manipulating information is the purpose of any database - it is inherent in the reference.

Patent 5,806,063, Reissue application, claim 11	Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]
A method of processing dates in a database, comprising the steps of	The reference is directed at managing date keys of a data file, [Title] which is effected by processing date data in a database.
providing a database with dates stored therein according to a format wherein $M_1M_2$ is the numerical month designator, $D_1D_2$ is the numerical day designator, and $Y_1Y_2$ is the numerical year designator, all of dates falling within a 10-decade period of time which includes the decade beginning in the year 2000;	The unprocessed database uses two digits to represent year data, see the data in date file 1, an example is the first entry, "991203" which represents 3 <sup>rd</sup> Dec. 1999 [0003]. The text [0010 and 0011] make it clear that the date range is limited "The reason for this is that the data file 1 does not contain the year data '2099' or '1900'.", there is a "minimum value of the year data in the 20 <sup>th</sup> century" and a "maximum value of the year data in the 21 <sup>st</sup> century" with the "threshold value" in between these two. This is only possible if the span of the data base is less than 10 decades. Finally it is apparent that the 10 decade period includes the decade beginning with the year 2000.
selecting a 10-decade window with a $Y_AY_B$ value for the first decade of the window, $Y_AY_B$ being no later than the earliest $Y_1Y_2$ year designator in the database;	The "threshold value" or $\alpha$ corresponds to $Y_AY_B$ and it is "no later" than the earliest $Y_1Y_2$ since it is selected as between $n_0n_1$ , the minimum value of the $20^{th}$ Century date range and the lower value, $n_2n_3$ , which is the maximum value of the $21^{st}$ Century date range [0011].
determining a century designator $C_1C_2$ for each date in the database, $C_1C_2$ having a first value if $Y_1Y_2$ is less than $Y_AY_B$ and having a second value if $Y_1Y_2$ is equal to or greater than $Y_AY_B$ ;	A comparison is made between the date data, nn, and the threshold value, $\alpha$ ; if nn > $\alpha$ , the century designator "19" is used, otherwise, that is if nn $\leq \alpha$ , the other century designator, "20" is used [0015]. Note also that the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015]
reformatting each date in the form $C_1C_2Y_1Y_2M_1M_2D_1D_2$ to facilitate further processing of the dates; and	The date data has the selected century designator appended. "In this way, it restores the 4-digit year data, and, combining this with the remaining month and day data, transfers it to the key file compilation unit $5''$ . [0015] That is, we start with $Y_1Y_2M_1M_2D_1D_2$ and append $C_1C_2$ , to end up with $C_1C_2Y_1Y_2M_1M_2D_1D_2$ . Note also that

sorting the dates in the form $C_1C_2Y_1Y_2M_1M_2D_1D_2$	successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015]  The key file compilation unit 5 arranges the data in ascending order "by performing sorting processing". [0016]
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Reissue application	Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]
13. The method of claim 11, wherein the step of selecting includes the step of selecting $Y_AY_B$ such that $Y_B$ is 0 (zero).	The reference proposes a "threshold value" of 50 [Action] which corresponds to $Y_A = 5$ and $Y_B = 0$ .
14. The method of claim 11, including an additional step, after the step of sorting, of storing the sorted dates and their associated information back into the database.	The key file 3 has the restored date keys and it is part of the database [0016] to correspond to this clause.
15. The method of claim 14, including the additional step, after the step of sorting, of manipulating information in the database having the reformatted date therein.	The act of manipulating information is the purpose of any database - it is inherent in the reference.

Japan 06-103133, April 15, 1994

[Citations are to the paragraph

Reissue Application, claim 16

reformatting the symbolic

representation of each symbolic

representation of a date in the

applied to "each" record. [0015]

designator appended.

The date data has the selected century

restores the 4-digit year data, and,

combining this with the remaining

"In this way, it

database, without the addition of any new data field to the database with the reformatted symbolic representation of each date in the database having the values  $C_1C_2$ ,  $Y_1Y_2$ ,  $M_1M_2$  and  $D_1D_2$ , in order to facilitate collectively further processing the reformatted symbolic representations of each of the symbolic representations of each of the dates.

month and day data, transfers it to the key file compilation unit 5". [0015] That is, we start with  $Y_1Y_2M_1M_2D_1D_2$  and append  $C_1C_2$ , to end up with  $C_1C_2Y_1Y_2M_1M_2D_1D_2$ . The processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015] Since this may be accomplished "without having to modify" the "existing files" [0018] it is clear that there has not been the addition of a "new data field".

	Reissue Application	Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]
	17. The method of claim 16, wherein the window includes at least a portion of the decade beginning in the year 2000.	The reference is directed to Y2K, i.e., the transition from the 20 <sup>th</sup> to the 21 <sup>st</sup> century and so, by definition, uses a window which encompasses the year 2000 [Object].
	18. The method of claim 17, wherein the step of determining includes the step of determining the first value as 20 and the second value as 19.	Since the reference is directed at Y2K [Object] the century indicators are "19" and "20" [Constitution].
	19. The method of claim 16, including an additional step; after the step of reformatting of sorting the symbolic representations of dates.	After 4 digit year value is determined, "data sorting" is performed [Constitution].
TE: 3x4 (10) 11:1)	20. The method of claim 16, wherein the step of reformatting includes the step of reformatting each symbolic representation of a date into the format $C_1C_2Y_1Y_2M_1M_2D_1D_2$ separately from the symbolic	Once the proper century indicator is determined, it is "appended" to the year data so as to combine the 4 digit year with month and day data [0015], this is the claimed format.
	representations in the database.	The recitation of "reformatting separately" cannot serve to distinguish the reference since there is no support in the specification for this feature.
	21. The method of claim 20 including an additional step, after the step of reformatting, of sorting the symbolic representations of dates using a numerical—order sort.	Once the eight digit date data (four digit year, two digit month and day) is created, the key file 3 is compiled by "sorting" [0016]. A numerical sort can be used since, the eight digit date data "now accurately reflect the time sequence" [0012].
	23. The method of claim 16, wherein the step of selecting includes the step of selecting $Y_AY_B$ such that $Y_B$ is 0 (zero).	The reference proposes a "threshold value" of 50 [Action] which corresponds to $Y_A = 5$ and $Y_B = 0$ .
	24. The method of claim 16, including an additional step, after the step of reformatting, of storing the symbolic representation of dates and their associated information back into the database.	The key file 3 has the restored date keys and it becomes part of the database [0016] to correspond to this clause.
	25. The method of claim 24, including the additional step, after the step of reformatting, of manipulating information in the database having the reformatted date information therein.	The act of manipulating information is the purpose of any database - it is inherent in the reference.

Reissue application, claim 26	Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]
A method of processing dates in a database, comprising the steps of:	The reference is directed at managing date keys of a data file, [Title] which is effected by processing date data in a database
providing a database with dates stored therein according to a format wherein $M_1M_2$ is the numerical month designator, $D_1D_2$ is the numerical day designator, and $Y_1Y_2$ is the numerical year designator, all of the symbolic representations of dates falling within a 10-decade period of time;	The unprocessed database uses two digits to represent each of year, month and day data, see the data in date file 1, an example is the first entry, "991203" which represents 3 <sup>rd</sup> Dec. 1999 [0003]. The text [0010 and 0011] make it clear that the date range is limited "The reason for this is that the data file 1 does not contain the year data '2099' or '1900'.", there is a "minimum value of the year data in the 20 <sup>th</sup> century" and a "maximum value of the year data in the 21 <sup>st</sup> century" with the "threshold value" in between these two. This is only possible if the span of the data base is less than 10 decades
selecting a window with a $Y_AY_B$ value for a pivot date of the window, $Y_AY_B$ being no later than the earliest $Y_1Y_2$ year designator in the database;	The "threshold value" or $\alpha$ corresponds to $Y_AY_B$ and it is "no later" than the earliest $Y_1Y_2$ since it is selected as between $n_0n_1$ , the minimum value of the $20^{th}$ Century date range and the lower value, $n_2n_3$ , which is the maximum value of the $21^{st}$ Century date range [0011]. Although not mentioned in this reference (nor in the specification of the application) those skilled in the art have applied the term "pivot date" to what the claim terms $Y_AY_B$ and the reference refers to as the "threshold value" or $\alpha$ .
determining a century designator $C_1C_2$ for each date in the database, $C_1C_2$ having a first value if $Y_1Y_2$ is less than $Y_AY_B$ and having a second value if $Y_1Y_2$ is equal to or greater than $Y_AY_B$	A comparison is made between the year data, nn, and the threshold value, $\alpha$ ; if nn > $\alpha$ , the century designator "19" is used, otherwise, that is if nn $\leq \alpha$ , the other century designator, "20" is used [0015]. Note also that the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015]
reformatting the symbolic representation of each symbolic representation of a date in the database, without the addition of any new data field to the database with	The date data has the selected century designator appended. "In this way, it restores the 4-digit year data, and, combining this with the remaining month and day data, transfers it to

the reformatted symbolic	the key file compilation unit 5".
representation of each date in the	[0015] That is, we start with
database having the values $C_1C_2$ , $Y_1Y_2$ ,	$Y_1Y_2M_1M_2D_1D_2$ and append $C_1C_2$ , to end up
$M_1M_2$ and $D_1D_2$ , in order to facilitate	with $C_1C_2Y_1Y_2M_1M_2D_1D_2$ . The processing
collectively further processing, the	is applied to "the successive records
reformatted symbolic representations	of data file 1 and terminates when the
of each of the symbolic	last record is processed", i.e., the
representations of each of the dates;	processing is applied to "each"
and	record. [0015] Since this may be
	accomplished "without having to
	modify" the "existing files" [0018] it
	is clear that there has not been the
	addition of a "new data field".
sorting the dates in the form	The key file compilation unit 5
$C_1C_2Y_1Y_2M_1M_2D_1D_2.$	arranges the data in ascending order
	"by performing sorting processing".
	[0016]

Reissue Application	Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]
28. The method of claim 26, wherein the step of	The reference proposes a "threshold value" of 50 [Action] which corresponds to $Y_A = 5$ and $Y_B = 0$ .
selecting includes the step of:	
selecting $Y_AY_B$ such that $Y_B$ is 0 (zero).	
29. The method of claim 26, including an additional step after the step of sorting, of;	The key file 3 has the restored date keys and it is part of the database [0016] to correspond to this clause.
storing the sorted dates and their associated information back into the database.	
30. The method of claim 29, including the additional step, after the step of sorting, of:	The act of manipulating information is the purpose of any database - it is inherent in the reference.
manipulating information in the database having the reformatted dates therein.	
<del>-</del>	

Reissue application, claim 31	Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]
A method of processing symbolic representations of dates stored in a database, comprising the steps at:	The reference is directed at managing date keys of a data file, [Title] which is effected by processing date data in a database. Each data item is a symbolic representation.
providing a database with symbolic representations of dates stored therein according to a format wherein $Y_1Y_2$ is the numerical year designator:	The unprocessed database uses two digits to represent year data, see the data in date file 1, an example is the first entry, "991203" which represents 3 <sup>rd</sup> Dec. 1999 [0003
selecting a window with a $Y_AY_B$ value for the first decade of the window, $Y_AY_B$ being no later than the earliest $Y_1Y_2$ year designator in the database;	The "threshold value" or $\alpha$ corresponds to $Y_AY_B$ and it is "no later" than the earliest $Y_1Y_2$ since it is selected as between $n_0n_1$ , the minimum value of the $20^{th}$ Century date range and the lower value, $n_2n_3$ , which is the maximum value of the $21^{st}$ Century date range [0011].
	A comparison is made between the year data, nn, and the threshold value, $\alpha$ ; if nn > $\alpha$ , the century designator "19" is used, otherwise, that is if nn $\leq \alpha$ , the other century designator, "20" is used [0015]. Note also that the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015]
reformatting the symbolic representation of each symbolic representation of a date in the database, without the addition of any new data field to the database, with the reformatted symbolic representation of each date in the database having the values $C_1C_2$ , $Y_1Y_2$ , in order to facilitate collectively further processing the reformatted symbolic representations of each of the symbolic representations of each of the dates.	The date data has the selected century designator appended. "In this way, it restores the 4-digit year data, and, combining this with the remaining month and day data, transfers it to the key file compilation unit 5". [0015] That is, we start with Y <sub>1</sub> Y <sub>2</sub> M <sub>1</sub> M <sub>2</sub> D <sub>1</sub> D <sub>2</sub> and append C <sub>1</sub> C <sub>2</sub> , to end up with C <sub>1</sub> C <sub>2</sub> Y <sub>1</sub> Y <sub>2</sub> M <sub>1</sub> M <sub>2</sub> D <sub>1</sub> D <sub>2</sub> . Clearly this means each item has the values C <sub>1</sub> C <sub>2</sub> and Y <sub>1</sub> Y <sub>2</sub> . The processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015] Since this may be accomplished "without having to modify" the "existing files" [0018] it is clear that there has not been the addition of a "new data field".

Reissue Application, claim 32	Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]
A method of processing dates in a database, comprising the steps of:	The reference is directed at managing date keys of a data file, [Title] which is effected by processing date data in a database
providing a database with symbolic representations of dates stored therein according to a format wherein $Y_1Y_2$ is the numerical year designator	The unprocessed database uses two digits to represent each of year, month and day data, see the data in date file 1, an example is the first entry, "991203" which represents 3 <sup>rd</sup> Dec. 1999 [0003].
selecting a window with a $Y_1Y_2$ , value for the pivot year of the window, $Y_AY_B$ being no later than the earliest $Y_1Y_2$ year designator in the database;	The "threshold value" or $\alpha$ corresponds to $Y_AY_B$ and it is "no later" than the earliest $Y_1Y_2$ since it is selected as between $n_0n_1$ , the minimum value of the $20^{th}$ Century date range and the lower value, $n_2n_3$ , which is the maximum value of the $21^{st}$ Century date range [0011]. Although not mentioned in this reference (nor in the specification of the application) those skilled in the art have applied the term "pivot date" to what the claim terms $Y_AY_B$ and the reference refers to as the "threshold value" or $\alpha$ .
determining a century designator $C_1C_2$ for each symbolic representation of a date in the database, $C_1C_2$ having a first value if $Y_1Y_2$ is less than $Y_AY_B$ and having a second value if $Y_1Y_2$ is equal to or greater than $Y_AY_B$ ;	A comparison is made between the year data, nn, and the threshold value, $\alpha$ ; if nn > $\alpha$ , the century designator "19" is used, otherwise, that is if nn $\leq \alpha$ , the other century designator, "20" is used [0015]. Note also that the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015]
reformatting the symbolic representation of each of the dates in the database, without the addition of any new data field to the database, with the reformatted symbolic representation of each date in the database having the values C <sub>1</sub> C <sub>2</sub> , Y <sub>1</sub> Y <sub>2</sub> , in order to facilitate collectively further processing the reformatted symbolic representations of each of the dates; and	The date data has the selected century designator appended. "In this way, it restores the 4-digit year data, and, combining this with the remaining month and day data, transfers it to the key file compilation unit 5". [0015] That is, we start with Y <sub>1</sub> Y <sub>2</sub> M <sub>1</sub> M <sub>2</sub> D <sub>1</sub> D <sub>2</sub> and append C <sub>1</sub> C <sub>2</sub> , to end up with C <sub>1</sub> C <sub>2</sub> Y <sub>1</sub> Y <sub>2</sub> M <sub>1</sub> M <sub>2</sub> D <sub>1</sub> D <sub>2</sub> . The processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015] Since this may be accomplished "without having to

	modify" the "existing files" [0018] it is clear that there has not been the addition of a "new data field".
sorting the dates in the form $C_1C_2Y_1Y_2$ .	The key file compilation unit 5 arranges the data in ascending order "by performing sorting processing". [0016]

Reissue Application, claim 33	Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]
A method of processing symbolic representations of dates stored in a database, comprising the steps of:	The reference is directed at managing date keys of a data file, [Title] which is effected by processing date representations in a database, each item of data is a symbolic representation
providing a database with symbolic representations of dates stored therein according to a format wherein $Y_1Y_2$ is the year designator,	The unprocessed database uses two digits to represent year data, see the data in date file 1, an example is the first entry, "991203" which represents 3 <sup>rd</sup> Dec. 1999 [0003].
for the first decade of the window, $Y_AY_B$ being no later than the earliest $Y_1Y_2$ year designator in the database;	The "threshold value" or $\alpha$ corresponds to $Y_AY_B$ and it is "no later" than the earliest $Y_1Y_2$ since it is selected as between $n_0n_1$ , the minimum value of the $20^{th}$ Century date range and the lower value, $n_2n_3$ , which is the maximum value of the $21^{st}$ Century date range [0011].
determining a century designator $C_1C_2$ for each symbolic representation of a date in the database, $C_1C_2$ having a first value if $Y_1Y_2$ is less than $Y_AY_B$ and having a second value if $Y_1Y_2$ is equal to or greater than $Y_AY_B$ ; and	A comparison is made between the date data, nn, and the threshold value, $\alpha$ ; if nn > $\alpha$ , the century designator "19" is used, otherwise, that is if nn $\leq \alpha$ , the other century designator, "20" is used [0015]. Note also that the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015]
reformatting the symbolic representation of each symbolic representation of a date in the database, without changing any of the symbolic representations of a date in the database during the reformatting step, with the reformatted symbolic representation of each date in the database having the values $C_1C_2$ , $Y_1Y_2$ , in order to facilitate collectively further processing the reformatted symbolic representations of each of the dates.	The date data, augmented with the century designator (19 or 20), is then written to key file 3; as seen there the date data has been reformatted to add the century designator. The reformatted data has the form of $C_1C_2Y_1Y_2M_1M_2D_1D_2$ .  The meaning to be applied to the clause "without changing any of the symbolic representations of a data in the database during the reformatting step" is unclear since, neither the clause nor anything like it is found either in the Dickens specification or file history. There is then, no basis for distinguishing the
	A method of processing symbolic representations of dates stored in a database, comprising the steps of:  providing a database with symbolic representations of dates stored therein according to a format wherein Y <sub>1</sub> Y <sub>2</sub> is the year designator,  selecting a window with a Y <sub>A</sub> Y <sub>B</sub> value for the first decade of the window, Y <sub>A</sub> Y <sub>B</sub> being no later than the earliest Y <sub>1</sub> Y <sub>2</sub> year designator in the database;  determining a century designator C <sub>1</sub> C <sub>2</sub> for each symbolic representation of a date in the database, C <sub>1</sub> C <sub>2</sub> having a first value if Y <sub>1</sub> Y <sub>2</sub> is less than Y <sub>A</sub> Y <sub>B</sub> and having a second value if Y <sub>1</sub> Y <sub>2</sub> is equal to or greater than Y <sub>A</sub> Y <sub>B</sub> ; and  reformatting the symbolic representation of a date in the database, without changing any of the symbolic representation of a date in the database during the reformatting step, with the reformatted symbolic representation of each date in the database having the values C <sub>1</sub> C <sub>2</sub> , Y <sub>1</sub> Y <sub>2</sub> , in order to facilitate collectively further processing the reformatted symbolic representations of each of

Japan 06-103133, April 15, 1994 Reissue Application, claim 34 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation] The reference is directed at managing A method for representing and date keys of a data file, [Title] which utilizing dates stored in at least one is effected by processing date date field of a database utilizing representations in a database. symbolic representations of the dates item of data is a symbolic stored in the at least one date field representation. The problem solved by of the database, which are in a format the invention is the inversion in time that creates ambiguity between dates sequence caused by the use of two in each of a pair of adjacent digit year indications at the year centuries, comprising the steps of: 2000 [0005]. The unprocessed database uses two digits to represent year data, see the data in date file 1, an example is the first entry, "991203" which represents 3<sup>rd</sup> Dec. 1999 [0003]. The symbolic representations are converting each of the symbolic representations of dates stored in the amended by adding either "19" or "20" to represent the 20th and 21st century, at least one date field of the respectively [0015]. Note also that database to a symbolic representation the processing is applied to "the of each of the respective dates that successive records of data file 1 and does not create the ambiguity, terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015] Assuming the term "windowing" and by windowing the symbolic representations of each of the "pivot year" are given the common definition, then the "threshold value" respective dates as stored in the at of the reference corresponds to the least one date field of the database beginning of the "window" as well as against a pivot year represented by the "pivot year". The assumption is one of the symbolic representations of necessary since the terms "windowing" the dates as stored in the at least one date field of the database, and "pivot year" are not found in the Dickens specification. The processing without the addition of any new data proceeds by selecting a "threshold field to the database for purposes of value" or α which is "no later" than Isuch windowing and converting; and, the earliest year in the database. The threshold value is selected as between  $n_0n_1$ , the smallest  $20^{th}$  Century year and the lower value,  $n_2n_3$ , which is the maximum value of the  $21^{\rm st}$ Century date range [0011]. comparison is made between the date data, nn, and the threshold value,  $\alpha$ ; if nn >  $\alpha$ , the "19" designator is selected, otherwise "20" is selected. Since the nn may be equal to the "threshold value" (if nn is not >  $\alpha$ , then it is  $\leq$ ) which means that the "threshold value" may be a date stored in the database. Since this processing may be accomplished

"without having to modify" the

running a program collectively on each of the converted symbolic representations of each of the respective dates to sort or otherwise manipulate the dates represented by the converted symbolic representations, separately from the date data symbolic representations contained in the at least one date field of the database.

"existing files" [0018] it is clear that there has not been the addition of a "new data field".

Sorting is effected as described in [0006]. Typically sorting is effected by "running a progran" and is thus inherent in the reference. The meaning to be attributed to the phrase "running a program to sort ... separately from the date data symbolic representations contained in the at least one date field of the database" is difficult to determine since there is no such phrase or anything like it in the Dickens specification or file history. Clearly however, this does not represent a distinction between this clause of the claim and the reference.

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	Reissue Application	Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the
		Japanese publication and in the translation]
ŀ	35 A method of claim 34 further	Opening a database is typically the
	comprising the step of:	initial step for use. As such the
	compilating one beep of.	step is inherent in the reference.
	opening the database prior to the step	
	of converting.	
ı	36. The method of claim 34 further	The reference teaches both sorting a
	comprising the step of:	database as well as "otherwise
	collectively sorting the converted	manipulating" the data. Assuming the
	symbolic representations prior to the	program is effected to sort or
	step of running the program on the	manipulate, there is nothing else in
:	converted symbolic representations.	this claim. There is no support in
i		the specification for any other
		meaning.
1	37. The method of claim 35 further	The reference teaches both sorting a database as well as "otherwise
	comprising the step of:	manipulating" the data. Assuming the
	collectively sorting the converted symbolic representations prior to the	program is effected to sort or
	step of running the program on the	manipulate, there is nothing else in
	converted symbolic representations.	this claim. There is no support in
Ħ	Converged by mostly representations.	the specification for any other
		meaning.
H	38. The method of claim 34 further	The reference teaches both sorting a
A	comprising the step of:	database as well as "otherwise
	collectively manipulating the	manipulating" the data. Assuming the
	converted symbolic representations	program is effected to sort or
17	prior to the step of running the	manipulate, there is nothing else in
	program on the converted symbolic	this claim. There is no support in
	representations.	the specification for any other meaning.
	39. The method of claim 35 further	The reference teaches both sorting a
	comprising the step of:	database as well as "otherwise
	collectively manipulating the	manipulating" the data. Assuming the
	converted symbolic representations	program is effected to sort or
	prior to the step of running the	manipulate, there is nothing else in
	program on the converted symbolic	this claim. There is no support in
į	representations.	the specification for any other
		meaning.
	40. The method of claim 34 further	The reference teaches both sorting a
	comprising the step of:	database as well as "otherwise
	collectively sorting the converted	manipulating" the data. Assuming the program is effected to sort or
	symbolic representations according to a different data field contained in	manipulate, there is nothing else in
	the database from the at least one	this claim. There is no support in
	date field, prior to the step of	the specification for any other
ļ	running the program on the converted	meaning nor is there any support for
	symbolic representations.	sorting "according to a different data
	·	field".
	41. The method of claim 35 further	The reference teaches both sorting a
	comprising the step of:	database as well as "otherwise
ļ	collectively sorting the converted	manipulating" the data. Assuming the
	symbolic representations according to	program is effected to sort or

a different data field contained in the database from the at least one date field, prior to the step of running the program on the converted symbolic representations.	manipulate, there is nothing else in this claim. There is no support in the specification for any other meaning nor is there any support for sorting "according to a different data field".
42. The method of claim 34 further comprising the step of:	The reference teaches both sorting a database as well as "otherwise
collectively manipulating the converted symbolic representations according to a different data field contained in the database from the at least one date field, prior to the step of running the program on the converted symbolic representations.	manipulating" the data. Assuming the program is effected to sort or manipulate, there is nothing else in this claim. There is no support in the specification for any other meaning nor is there any support for sorting "according to a different data field".
43. The method of claim 35 further comprising the step of: collectively manipulating the converted symbolic representations according to a different data entry field contained in the database from the at least one date field, prior to the step of running the program on the converted symbolic representations.	The reference teaches both sorting a database as well as "otherwise manipulating" the data. Assuming the program is effected to sort or manipulate, there is nothing else in this claim. There is no support in the specification for any other meaning nor is there any support for sorting "according to a different data entry field".
44. The method of claim 34 wherein the program performs an operation which manipulates the data in a data field associated with the at least one date field of the database according to the converted symbolic representation of the date.	This claim merely calls for data manipulation of a database which is inherent in the reference.
45. The method of claim 35 wherein the program performs an operation which manipulates the data in a data field associated with the at least one date field of the database according to the converted symbolic representation of the date.	This claim merely calls for data manipulation of a database which is inherent in the reference
46. The method of claim 34 wherein the step of converting includes converting at least a. substantial portion of each of the plurality of symbolic representations of dates in the at least one date field and repeating this step until each of the date data entries in the at least one date field is converted into the format that does not have the ambiguity.	operating the conversion apparatus until all dates are converted.
47. The method of claim 35 wherein the step of converting includes converting at least a substantial portion of each of the plurality of symbolic representations of dates in the at least one date field and repeating	operating the conversion apparatus

this step until each of the date data	
entries in the at least one date field	
is converted into the format that does	
not have the ambiguity.	
48. The method of claim 46 further	The reference teaches both sorting a
	database as well as "otherwise
comprising the steps of:	manipulating" the data. Assuming the
_	manipulating the data. Assuming the
collectively sorting the converted	program is effected to sort or
symbolic representations prior to the	manipulate, there is nothing else in
step of running the program on the	this claim. There is no support in
converted symbolic representations.	the specification for any other
convoleda bimacila capitation	meaning.
49. The method of claim 47 further	The reference teaches both sorting a
	database as well as "otherwise
comprising the steps of:	manipulating" the data. Assuming the
collectively sorting the converted	program is effected to sort or
symbolic representations prior to the	manipulate, there is nothing else in
step of running the program on the	this claim. There is no support in
converted symbolic representations.	the specification for any other
	meaning.
50. The method of claim 46 further	The reference teaches both sorting a
comprising the step of:	database as well as "otherwise
Complising the step of.	manipulating" the data. Assuming the
<del>all</del>	program is effected to sort or
collectively manipulating the	manipulate, there is nothing else in
converted symbolic representations.	·
· · · · · · · · · · · · · · · · · · ·	the specification for any other
ا	meaning.
51. The method of claim 49 further	The reference teaches both sorting a
	The reference teaches both sorting a database as well as "otherwise
51.The method of claim 49 further comprising the step of;	The reference teaches both sorting a database as well as "otherwise
comprising the step of;	The reference teaches both sorting a database as well as "otherwise manipulating" the data. Assuming the
comprising the step of;  collectively manipulating the	The reference teaches both sorting a database as well as "otherwise manipulating" the data. Assuming the program is effected to sort or
comprising the step of;	The reference teaches both sorting a database as well as "otherwise manipulating" the data. Assuming the program is effected to sort or manipulate, there is nothing else in
comprising the step of;  collectively manipulating the	The reference teaches both sorting a database as well as "otherwise manipulating" the data. Assuming the program is effected to sort or manipulate, there is nothing else in this claim. There is no support in
comprising the step of;  collectively manipulating the	The reference teaches both sorting a database as well as "otherwise manipulating" the data. Assuming the program is effected to sort or manipulate, there is nothing else in this claim. There is no support in the specification for any other
comprising the step of;  collectively manipulating the converted symbolic representations.	The reference teaches both sorting a database as well as "otherwise manipulating" the data. Assuming the program is effected to sort or manipulate, there is nothing else in this claim. There is no support in the specification for any other meaning.
comprising the step of;  collectively manipulating the converted symbolic representations.	The reference teaches both sorting a database as well as "otherwise manipulating" the data. Assuming the program is effected to sort or manipulate, there is nothing else in this claim. There is no support in the specification for any other meaning.  The reference teaches sorting a
comprising the step of;  collectively manipulating the converted symbolic representations.	The reference teaches both sorting a database as well as "otherwise manipulating" the data. Assuming the program is effected to sort or manipulate, there is nothing else in this claim. There is no support in the specification for any other meaning.  The reference teaches sorting a database. Assuming the program is
comprising the step of;  collectively manipulating the converted symbolic representations.  52. The method of claim 46 further comprising the step of:	The reference teaches both sorting a database as well as "otherwise manipulating" the data. Assuming the program is effected to sort or manipulate, there is nothing else in this claim. There is no support in the specification for any other meaning.  The reference teaches sorting a database. Assuming the program is effected to sort or manipulate, there
collectively manipulating the converted symbolic representations.  52. The method of claim 46 further comprising the step of:	The reference teaches both sorting a database as well as "otherwise manipulating" the data. Assuming the program is effected to sort or manipulate, there is nothing else in this claim. There is no support in the specification for any other meaning.  The reference teaches sorting a database. Assuming the program is effected to sort or manipulate, there is nothing else in this claim. There
collectively manipulating the converted symbolic representations.  52. The method of claim 46 further comprising the step of:  collectively sorting the converted symbolic representations according to	The reference teaches both sorting a database as well as "otherwise manipulating" the data. Assuming the program is effected to sort or manipulate, there is nothing else in this claim. There is no support in the specification for any other meaning.  The reference teaches sorting a database. Assuming the program is effected to sort or manipulate, there is nothing else in this claim. There is no support in the specification for
collectively manipulating the converted symbolic representations.  52. The method of claim 46 further comprising the step of:  collectively sorting the converted symbolic representations according to	The reference teaches both sorting a database as well as "otherwise manipulating" the data. Assuming the program is effected to sort or manipulate, there is nothing else in this claim. There is no support in the specification for any other meaning.  The reference teaches sorting a database. Assuming the program is effected to sort or manipulate, there is nothing else in this claim. There is no support in the specification for any other meaning nor is there any
comprising the step of;  collectively manipulating the converted symbolic representations.  52. The method of claim 46 further comprising the step of:  collectively sorting the converted symbolic representations according to a different data field in the database	The reference teaches both sorting a database as well as "otherwise manipulating" the data. Assuming the program is effected to sort or manipulate, there is nothing else in this claim. There is no support in the specification for any other meaning.  The reference teaches sorting a database. Assuming the program is effected to sort or manipulate, there is nothing else in this claim. There is no support in the specification for
comprising the step of;  collectively manipulating the converted symbolic representations.  52. The method of claim 46 further comprising the step of:  collectively sorting the converted symbolic representations according to a different data field in the database than the at least one date field,	The reference teaches both sorting a database as well as "otherwise manipulating" the data. Assuming the program is effected to sort or manipulate, there is nothing else in this claim. There is no support in the specification for any other meaning.  The reference teaches sorting a database. Assuming the program is effected to sort or manipulate, there is nothing else in this claim. There is no support in the specification for any other meaning nor is there any
comprising the step of;  collectively manipulating the converted symbolic representations.  52. The method of claim 46 further comprising the step of:  collectively sorting the converted symbolic representations according to a different data field in the database than the at least one date field, prior to the step of running the	The reference teaches both sorting a database as well as "otherwise manipulating" the data. Assuming the program is effected to sort or manipulate, there is nothing else in this claim. There is no support in the specification for any other meaning.  The reference teaches sorting a database. Assuming the program is effected to sort or manipulate, there is nothing else in this claim. There is no support in the specification for any other meaning nor is there any support for sorting on "a different
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comprising the step of;  collectively manipulating the converted symbolic representations.  52. The method of claim 46 further comprising the step of:  collectively sorting the converted symbolic representations according to a different data field in the database than the at least one date field, prior to the step of running the program.  53. The method of claim 47 further	The reference teaches both sorting a database as well as "otherwise manipulating" the data. Assuming the program is effected to sort or manipulate, there is nothing else in this claim. There is no support in the specification for any other meaning.  The reference teaches sorting a database. Assuming the program is effected to sort or manipulate, there is nothing else in this claim. There is no support in the specification for any other meaning nor is there any support for sorting on "a different data field".  The reference teaches both sorting a
comprising the step of;  collectively manipulating the converted symbolic representations.  52. The method of claim 46 further comprising the step of:  collectively sorting the converted symbolic representations according to a different data field in the database than the at least one date field, prior to the step of running the program.	The reference teaches both sorting a database as well as "otherwise manipulating" the data. Assuming the program is effected to sort or manipulate, there is nothing else in this claim. There is no support in the specification for any other meaning.  The reference teaches sorting a database. Assuming the program is effected to sort or manipulate, there is nothing else in this claim. There is no support in the specification for any other meaning nor is there any support for sorting on "a different data field".  The reference teaches both sorting a database. Assuming the program is
comprising the step of;  collectively manipulating the converted symbolic representations.  52. The method of claim 46 further comprising the step of:  collectively sorting the converted symbolic representations according to a different data field in the database than the at least one date field, prior to the step of running the program.  53. The method of claim 47 further comprising the step of:	The reference teaches both sorting a database as well as "otherwise manipulating" the data. Assuming the program is effected to sort or manipulate, there is nothing else in this claim. There is no support in the specification for any other meaning.  The reference teaches sorting a database. Assuming the program is effected to sort or manipulate, there is nothing else in this claim. There is no support in the specification for any other meaning nor is there any support for sorting on "a different data field".  The reference teaches both sorting a database. Assuming the program is effected to sort or manipulate, there
comprising the step of;  collectively manipulating the converted symbolic representations.  52. The method of claim 46 further comprising the step of:  collectively sorting the converted symbolic representations according to a different data field in the database than the at least one date field, prior to the step of running the program.  53. The method of claim 47 further comprising the step of:  collectively sorting the converted	The reference teaches both sorting a database as well as "otherwise manipulating" the data. Assuming the program is effected to sort or manipulate, there is nothing else in this claim. There is no support in the specification for any other meaning.  The reference teaches sorting a database. Assuming the program is effected to sort or manipulate, there is nothing else in this claim. There is no support in the specification for any other meaning nor is there any support for sorting on "a different data field".  The reference teaches both sorting a database. Assuming the program is effected to sort or manipulate, there is nothing else in this claim. There
comprising the step of;  collectively manipulating the converted symbolic representations.  52. The method of claim 46 further comprising the step of:  collectively sorting the converted symbolic representations according to a different data field in the database than the at least one date field, prior to the step of running the program.  53. The method of claim 47 further comprising the step of:  collectively sorting the converted symbolic representations according to	The reference teaches both sorting a database as well as "otherwise manipulating" the data. Assuming the program is effected to sort or manipulate, there is nothing else in this claim. There is no support in the specification for any other meaning.  The reference teaches sorting a database. Assuming the program is effected to sort or manipulate, there is nothing else in this claim. There is no support in the specification for any other meaning nor is there any support for sorting on "a different data field".  The reference teaches both sorting a database. Assuming the program is effected to sort or manipulate, there is nothing else in this claim. There is no support in the specification for
comprising the step of;  collectively manipulating the converted symbolic representations.  52. The method of claim 46 further comprising the step of:  collectively sorting the converted symbolic representations according to a different data field in the database than the at least one date field, prior to the step of running the program.  53. The method of claim 47 further comprising the step of:  collectively sorting the converted	The reference teaches both sorting a database as well as "otherwise manipulating" the data. Assuming the program is effected to sort or manipulate, there is nothing else in this claim. There is no support in the specification for any other meaning.  The reference teaches sorting a database. Assuming the program is effected to sort or manipulate, there is nothing else in this claim. There is no support in the specification for any other meaning nor is there any support for sorting on "a different data field".  The reference teaches both sorting a database. Assuming the program is effected to sort or manipulate, there is nothing else in this claim. There is no support in the specification for any other meaning nor is there any
comprising the step of;  collectively manipulating the converted symbolic representations.  52. The method of claim 46 further comprising the step of:  collectively sorting the converted symbolic representations according to a different data field in the database than the at least one date field, prior to the step of running the program.  53. The method of claim 47 further comprising the step of:  collectively sorting the converted symbolic representations according to a different data field in the database	The reference teaches both sorting a database as well as "otherwise manipulating" the data. Assuming the program is effected to sort or manipulate, there is nothing else in this claim. There is no support in the specification for any other meaning.  The reference teaches sorting a database. Assuming the program is effected to sort or manipulate, there is nothing else in this claim. There is no support in the specification for any other meaning nor is there any support for sorting on "a different data field".  The reference teaches both sorting a database. Assuming the program is effected to sort or manipulate, there is nothing else in this claim. There is no support in the specification for any other meaning nor is there any support for sorting on "a different
comprising the step of;  collectively manipulating the converted symbolic representations.  52. The method of claim 46 further comprising the step of:  collectively sorting the converted symbolic representations according to a different data field in the database than the at least one date field, prior to the step of running the program.  53. The method of claim 47 further comprising the step of:  collectively sorting the converted symbolic representations according to a different data field in the database than the at least one date field,	The reference teaches both sorting a database as well as "otherwise manipulating" the data. Assuming the program is effected to sort or manipulate, there is nothing else in this claim. There is no support in the specification for any other meaning.  The reference teaches sorting a database. Assuming the program is effected to sort or manipulate, there is nothing else in this claim. There is no support in the specification for any other meaning nor is there any support for sorting on "a different data field".  The reference teaches both sorting a database. Assuming the program is effected to sort or manipulate, there is nothing else in this claim. There is no support in the specification for any other meaning nor is there any
comprising the step of;  collectively manipulating the converted symbolic representations.  52. The method of claim 46 further comprising the step of:  collectively sorting the converted symbolic representations according to a different data field in the database than the at least one date field, prior to the step of running the program.  53. The method of claim 47 further comprising the step of:  collectively sorting the converted symbolic representations according to a different data field in the database than the at least one date field, prior to the step of running the	The reference teaches both sorting a database as well as "otherwise manipulating" the data. Assuming the program is effected to sort or manipulate, there is nothing else in this claim. There is no support in the specification for any other meaning.  The reference teaches sorting a database. Assuming the program is effected to sort or manipulate, there is nothing else in this claim. There is no support in the specification for any other meaning nor is there any support for sorting on "a different data field".  The reference teaches both sorting a database. Assuming the program is effected to sort or manipulate, there is nothing else in this claim. There is no support in the specification for any other meaning nor is there any support for sorting on "a different
collectively manipulating the converted symbolic representations.  52. The method of claim 46 further comprising the step of:  collectively sorting the converted symbolic representations according to a different data field in the database than the at least one date field, prior to the step of running the program.  53. The method of claim 47 further comprising the step of:  collectively sorting the converted symbolic representations according to a different data field in the database than the at least one date field, prior to the step of running the program.	The reference teaches both sorting a database as well as "otherwise manipulating" the data. Assuming the program is effected to sort or manipulate, there is nothing else in this claim. There is no support in the specification for any other meaning.  The reference teaches sorting a database. Assuming the program is effected to sort or manipulate, there is nothing else in this claim. There is no support in the specification for any other meaning nor is there any support for sorting on "a different data field".  The reference teaches both sorting a database. Assuming the program is effected to sort or manipulate, there is nothing else in this claim. There is no support in the specification for any other meaning nor is there any support for sorting on "a different
comprising the step of;  collectively manipulating the converted symbolic representations.  52. The method of claim 46 further comprising the step of:  collectively sorting the converted symbolic representations according to a different data field in the database than the at least one date field, prior to the step of running the program.  53. The method of claim 47 further comprising the step of:  collectively sorting the converted symbolic representations according to a different data field in the database than the at least one date field, prior to the step of running the	The reference teaches both sorting a database as well as "otherwise manipulating" the data. Assuming the program is effected to sort or manipulate, there is nothing else in this claim. There is no support in the specification for any other meaning.  The reference teaches sorting a database. Assuming the program is effected to sort or manipulate, there is nothing else in this claim. There is no support in the specification for any other meaning nor is there any support for sorting on "a different data field".  The reference teaches both sorting a database. Assuming the program is effected to sort or manipulate, there is nothing else in this claim. There is no support in the specification for any other meaning nor is there any support for sorting on "a different data field".

ſ	collectively manipulating the	manipulating the data as well as
	converted symbolic.	collectively manipulating the data.
ŀ	55. The method of claim 53 further	Since the reference deals with a
	comprising the step of:	database it inherently teaches
	collectively manipulating the	manipulating the data as well as
	converted symbolic representations	collectively manipulating the data
-	56. The method of claim 52 wherein the	Since the reference deals with a
	program performs an operation which	database it inherently teaches
	manipulates the data in a data field	manipulating the data as well as
	associated with the at least one date	collectively manipulating the data
	field of the database according to the	, , , , , , , , , , , , , , , , , , ,
	converted symbolic representation of	
	the date.	
ŀ	57. The method of claim 53 wherein the	Since the reference deals with a
j	program performs an operation which	database it inherently teaches
ŀ	manipulates the data in a data field	manipulating the data as well as
	associated with the at least one date	collectively manipulating the data
	field of the database according to the	1 1
İ	converted symbolic representation of	
İ	the date.	
<b> </b>	58. The method of claim 54 wherein the	Since the reference deals with a
	program performs an operation which	database it inherently teaches
	manipulates the data in a data field	manipulating the data as well as
¥	associated with the at least one date	collectively manipulating the data
	field of the database according to	
H	the. converted symbolic representation	
H	of the date.	
	59. The method of claim 55 wherein the	Since the reference deals with a
	program performs an operation which	database it inherently teaches
	manipulates the data in a data field	manipulating the data as well as
Ħ	associated with the at least one date	collectively manipulating the data
2 F	field of the database according to the	
	the date.	
Ē	<u>.</u>	
	<u>.</u>	
1	the date.	

Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]

A method for representing and utilizing dates stored in at least one date field of a database utilizing symbolic representations of the dates stored in the at least one date field of the database, which are in a format that creates ambiguity between dates in each of a pair of adjacent centuries, comprising the steps of

The reference is directed at managing date keys of a data file, [Title] which is effected by processing date representations in a database. Each item of data is a symbolic representation. The problem solved by the invention is the inversion in time sequence caused by the use of two digit year indications at the year 2000. [0005]

converting each of the symbolic representations of dates stored in the at least one date field of the database to a symbolic representation of each of the respective dates that does not create the ambiguity, by windowing the symbolic representations of each of the respective dates as stored in the at least one date field of the database against a pivot year represented by one of the symbolic representations of the dates as stored in the at least one date field of the database, without modifying any of. the symbolic representations of dates in the at least one date field of the database for purposes of such windowing and converting;

Assuming the term "windowing" and "pivot year" are given the common definition, then the "threshold value" of the reference corresponds to the beginning of the "window" as well as the "pivot year". The assumption is necessary since the terms "windowing" and "pivot year" are not found in the Dickens specification. The unprocessed database uses two digits to represent year data, see the data in date file 1, an example is the first entry, "991203" which represents  $3^{\rm rd}$  Dec. 1999 [0003]. The symbolic representations are amended by adding either "19" or "20" to represent the 20th and 21st century, respectively [0015]. Note also that the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record [0015]. Assuming that the claimed "pivot year" has the common meaning in the art, then the "threshold year" of the reference corresponds to the pivot year. The processing selects a "threshold value" or  $\alpha$  which is "no later" than the earliest year in the database. The threshold value is selected as between  $n_0n_1$ , the smallest 20th Century year and the lower value,  $n_2 n_3$ , which is the maximum value of the 21st Century date range [0011]. Then a comparison is made between the date data, nn, and the threshold value,  $\alpha$ ; if nn >  $\alpha$ , the "19" designator is selected, otherwise "20" is selected. Since the nn may be equal to the "threshold value" (if nn is not  $> \alpha$ , then it is  $\le$ ) which means

that the "threshold value" may be a date stored in the database. The meaning to be attributed to the phrase "converting ... without modifying ..." is not apparent since there is no such phrase (or anything like it) to be found in either the Dickens specification or the file history. Clearly, however, this phrase does not distinguish from the reference.

running a program on each of the converted symbolic representations of each of the respective dates to sort or otherwise manipulate data in the database according to the dates represented by the converted symbolic representations, separately from the date data symbolic representations of dates contained in the at least one date field of the database.

Sorting is effected as described in [0006]. Typically sorting is effected by "running a progran" and is thus inherent in the reference. Since the phrase "running a program to sort ... separately from the date data symbolic representations contained in the at least one date field of the database" is not found either in the Dickens specification or file history the meaning to be attributed to this clause is in doubt. It is clear, however that there is no distinction between this clause of the

claim and the reference.

Reissue application, claim 61

[Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]

The reference is directed at mar date keys of a data file. [Title]

Japan 06-103133, April 15, 1994

A method for representing and utilizing dates stored in at least one date field of a database utilizing symbolic representations of the dates stored in the at least one date field of the database, which are in a format that creates ambiguity between dates in each of a pair of adjacent centuries, comprising the steps of:

The reference is directed at managing date keys of a data file, [Title] which is effected by processing date representations in a database. Each item of data is a symbolic representation. The problem solved by the invention is the inversion in time sequence caused by the use of two digit year indications at the year 2000. [0005]

converting each of the symbolic representations of dates stored in the at least one date field of the database to a symbolic representation of each of the respective dates that does not create the ambiguity, by windowing the symbolic representations at each of the respective dates as stored in the at least one date field of the database against a pivot year represented by one of the symbolic representations of the dates as stored in the at least one date field of the database, without modifying any of the symbolic representations of dates in the at least date field of the database for purposes of such windowing and converting;

Assuming the term "windowing" and "pivot year" are given the common definition, then the "threshold value" of the reference corresponds to the beginning of the "window" as well as the "pivot year". The assumption is necessary since the terms "windowing" and "pivot year" are not found in the Dickens specification. The unprocessed database uses two digits to represent year data, see the data in date file 1, an example is the first entry, "991203" which represents 3<sup>rd</sup> Dec. 1999 [0003]. The symbolic representations are amended by adding either "19" or "20" to represent the 20th and 21st century, respectively [0015]. Note that the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record [0015]. Assuming that the claimed "pivot year" has the common meaning in the art, then the "threshold year" of the reference corresponds to the pivot year. The processing selects a "threshold value" or  $\alpha$  which is "no later" than the earliest year in the database. The threshold value is selected as between  $n_0n_1$ , the smallest 20<sup>th</sup> Century year and the lower value,  $n_2n_3$ , which is the maximum value of the 21st Century date range [0011]. A comparison is made between the date data, nn, and the threshold value,  $\alpha$ ; if nn >  $\alpha$ , the "19" designator is selected, otherwise "20" is selected. Since the nn may be equal to the

Since the nn may be equal to the "threshold value" (if nn is not >  $\alpha$ , then it is  $\leq$ ) which means that the

"threshold value" may be a date stored in the database. The meaning to be attributed to the phrase "converting ... without modifying ..." is not apparent since there is no such phrase (or anything like it) to be found in either the Dickens specification or the file history. Clearly, however, this phrase does not distinguish from the reference.

running a program collectively on each of the converted symbolic representations of each of the respective dates to sort or otherwise manipulate the dates represented by the converted symbolic representations separately from the symbolic representations of dates contained in the at least one date field of the database.

Sorting is effected as described in [0006]. Typically sorting is effected by "running a progran" and is thus inherent in the reference. Since the phrase "running a program ... to sort ... separately from the date data symbolic representations contained in the at least one date field of the database" is not found either in the Dickens specification or file history the meaning to be attributed to this clause is in doubt. It is clear, however that there is no distinction between this clause of the

claim and the reference.

Reissue application, claim 62

A method for representing and utilizing dates stored in at least one date field of a database utilizing symbolic representations of the dates stored in the at least one date field of the database, which are in a format that creates ambiguity between dates in each of a pair of adjacent centuries, comprising the steps of:

converting each of the symbolic representations of dates stored in the at least one date field of the database to a symbolic representation of each of the respective dates that does not create the ambiguity, by windowing the symbolic representations of each of the respective dates as stored in the at least one date field of the database against a pivot year represented by one of the symbolic representations of the dates as stored in the at least one date field of the database, without the addition of any new data field to the database for purposes of such windowing and converting;

Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]

The reference is directed at managing date keys of a data file, [Title] which is effected by processing date representations in a database. Each item of data is a symbolic representation. The problem solved by the invention is the inversion in time sequence caused by the use of two digit year indications at the year 2000. [0005]

Assuming the term "windowing" and "pivot year" are given the common definition, then the "threshold value" of the reference corresponds to the beginning of the "window" as well as the "pivot year". The assumption is necessary since the terms "windowing" and "pivot year" are not found in the Dickens specification. The unprocessed database uses two digits to represent year data, see the data in date file 1, an example is the first entry, "991203" which represents 3<sup>rd</sup> Dec. 1999 [0003]. The symbolic representations are amended by adding either "19" or "20" to represent the 20th and 21st century, respectively [0015]. Note that the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record [0015]. Assuming that the claimed "pivot year" has the common meaning in the art, then the "threshold year" of the reference corresponds to the pivot year. The processing selects a "threshold value" or  $\alpha$  which is "no later" than the earliest year in the database. The threshold value is selected as between  $n_0n_1$ , the smallest 20th Century year and the lower value,  $n_2n_3$ , which is the maximum value of the 21st Century date range [0011]. Then a comparison is made between the date data, nn, and the threshold value,  $\alpha$ ; if nn >  $\alpha$ , the "19" designator is selected, otherwise "20" is selected. Since the nn may be equal to the "threshold value" (if nn is not >  $\alpha$ , then it is  $\leq$ ) which means

that the "threshold value" may be a

date stored in the database.

storing the converted symbolic representations separate from the at least one date field of the database; and  Fig. 2 and the table of key file 3 make it clear that the converted database; is stored. The meaning to be attributed to "storing separate for the at least one date field of the database" is not clear since there no such phrase, or anything like it to be found in the Dickens specification or file history. In event, this cannot be a basis to distinguish the reference.  Funning a program on the stored converted symbolic representations to sort or otherwise manipulate data in the database according to the dates represented by the converted symbolic representations, separately from the database.
no such phrase, or anything like it to be found in the Dickens specification or file history. In event, this cannot be a basis to distinguish the reference.  Tunning a program on the stored converted symbolic representations to sort or otherwise manipulate data in the database according to the dates represented by the converted symbolic representations, separately from the round in the at least one date field of the database" is not found.
converted symbolic representations to sort or otherwise manipulate data in the database according to the dates represented by the converted symbolic representations, separately from the [0006]. Since the phrase "running program to sort separately from the data data symbolic representation contained in the at least one date field of the database" is not found
symbolic representations of dates contained in the at least one date field of the database.  either in the Dickens specification file history, the meaning to be attributed to this clause is in dou It is clear, however that there is distinction between this clause of claim and the reference.

Reissue application, claim 63

Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]

A method for representing and utilizing dates stored in at least one date field of a database utilizing symbolic representations of the dates stored in the at least one date field of the database, which are in a format that creates ambiguity between dates in each of a pair of adjacent centuries, comprising the steps of:

The reference is directed at managing date keys of a data file, [Title] which is effected by processing date representations in a database. Each item of data is a symbolic representation. The problem solved by the invention is the inversion in time sequence caused by the use of two digit year indications at the year 2000. [0005]

converting each of the symbolic representations of dates stored in the at least one date field of the database to a symbolic representation of each of the respective dates that does not create the ambiguity, by windowing the symbolic representations of each of the respective dates as stored in the at least one date field of the database against a pivot year represented by one of the symbolic representations of the dates as stored in the at least one date field of the database, without the addition of any new data field to the database for purposes of such windowing and converting;

Assuming the term "windowing" and "pivot year" are given the common definition, then the "threshold value" of the reference corresponds to the beginning of the "window" as well as the "pivot year". The assumption is necessary since the terms "windowing" and "pivot year" are not found in the Dickens specification. The unprocessed database uses two digits to represent year data, see the data in date file 1, an example is the first entry, "991203" which represents  $3^{\rm rd}$  Dec. 1999 [0003]. The symbolic representations are amended by adding either "19" or "20" to represent the 20th and 21st century, respectively [0015]. Note also that the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record [0015]. Assuming that the claimed "pivot year" has the common meaning in the art, then the "threshold year" of the reference corresponds to the pivot year. The processing selects a "threshold value" or  $\alpha$  which is "no later" than the earliest year in the database. The threshold value is selected as between  $n_0n_1$ , the smallest 20th Century year and the lower value  $n_2n_3$ , which is the maximum value of the 21st Century [0011]. Then a comparison is made between the date data, nn, and the threshold value,  $\alpha$ ; if nn >  $\alpha$ , the "19" designator is selected, otherwise "20" is selected. Since the nn may be equal to the "threshold value" (if nn is not >  $\alpha$ , then it is  $\leq$ ) which means that the

	"threshold value" may be a date stored
	in the database.
storing the converted symbolic representations separate from the at least one date field of the database: and	Fig. 2 and the table of key file 3 make it clear that the converted data is stored. The meaning to be attributed to "storing separate from the at least one date field of the database" is not clear since there is no such phrase, or anything like it, to be found in the Dickens specification or file history. In any event, this cannot be a basis to distinguish the reference.
running a program collectively on the stored converted symbolic representations to sort or otherwise manipulate the dates represented by the converted symbolic representations, separately from the symbolic representations of dates contained in the at least one date field of the database.	Sorting is effected as described in [0006]. Since the phrase "running a program to sort separately from the date data symbolic representations contained in the at least one date field of the database" is not found either in the Dickens specification or file history, the meaning to be attributed to this clause is in doubt. It is clear, however that there is no distinction between this clause of the claim and the reference.

A method for representing and utilizing dates stored in at least one date field of a database utilizing symbolic representations of the dates stored in the at least one date field at the database, which are in a format that creates ambiguity between dates in each of a pair of adjacent centuries, comprising the steps of;

The reference is directed at managing date keys of a data file, [Title] which is effected by processing date representations in a database. Each item of data is a symbolic representation. The problem solved by the invention is the inversion in time sequence caused by the use of two digit year indications at the year 2000. [0005]

converting each of the symbolic representations of dates stored in the at least one date field of the database to a symbolic representation of each of the respective dates that does not create the ambiguity, by windowing the symbolic representations of each of the respective dates as stored in the at least one date field of the database against a pivot year represented by one of the symbolic representations of the dates as stored in the at least one date field of the database, without modifying any of the symbolic representations of dates in the at least one date field of the database for purposes of such windowing and converting;

Assuming the term "windowing" and "pivot year" are given the common definition, then the "threshold value" of the reference corresponds to the beginning of the "window" as well as the "pivot year". The assumption is necessary since the terms "windowing" and "pivot year" are not found in the Dickens specification. The unprocessed database uses two digits to represent year data, see the data in date file 1, an example is the first entry, "991203" which represents 3<sup>rd</sup> Dec. 1999 [0003]. The symbolic representations are amended by adding either "19" or "20" to represent the 20th and 21st century, respectively [0015]. Note that the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record [0015]. Assuming that the claimed "pivot year" has the common meaning in the art, then the "threshold year" of the reference corresponds to the pivot year. The processing selects a "threshold value" or  $\alpha$  which is "no later" than the earliest year in the database. The threshold value is selected as between  $n_0n_1$ , the smallest 20th Century year and the lower value,  $n_2n_3$ , which is the maximum value of the 21st Century date range [0011]. Then a comparison is made between the date data, nn, and the threshold value,  $\alpha$ ; if nn >  $\alpha$ , the "19" designator is selected, otherwise "20" is selected. Since the nn may be equal to the "threshold value" (if nn is not >  $\alpha$ , then it is  $\leq$ ) which means

storing the converted symbolic representations separate from the at least one date field in the database; and	that the "threshold value" may be a date stored in the database. The meaning to be attributed to the phrase "converting without modifying" is not apparent since there is no such phrase (or anything like it) to be found in either the Dickens specification or the file history. Clearly, however, this phrase does not distinguish from the reference.  Fig. 2 and the table of key file 3 make it clear that the converted data is stored. The meaning to be attributed to "storing separate from the at least one date field of the database" is not clear since there is no such phrase, or anything like it, to be found in the Dickens specification or file history. In any event, this cannot be a basis to distinguish the reference.
running a program on the stored converted symbolic representations to sort or otherwise manipulate data in the database according to the dates represented by the converted symbolic representations separately from the symbolic representations of dates contained in the at least one date field of the database.	Sorting is effected as described in [0006]. Since the phrase "running a program to sort separately from the symbolic representations of dates contained in the at least one date field of the database" is not found either in the Dickens specification or file history, the meaning to be attributed to this clause is in doubt. It is clear, however that there is no distinction between this clause of the claim and the reference.

Reissue Application, claim 65

A method for representing and utilizing dates stored in at least one date field of a database utilizing symbolic representations of the dates stored in the at least one date field of the database, which are in a format that creates ambiguity between dates in each of a pair of adjacent centuries comprising the steps of:

converting each of the symbolic representations of dates stored in the at least one date field of the database to a symbolic representation of each of the respective dates that does not create the ambiguity, by windowing the symbolic representations of each of the respective dates as stored in the at least one date field of the database against a pivot year representations of the symbolic representations of the symbolic representations of the dates as stored in the at least one date field of the database,

Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]

The reference is directed at managing date keys of a data file, [Title] which is effected by processing date representations in a database. Each item of data is a symbolic representation. The problem solved by the invention is the inversion in time sequence caused by the use of two digit year indications at the year 2000. [0005]

Assuming the term "windowing" and "pivot year" are given the common definition, then the "threshold value" of the reference corresponds to the beginning of the "window" as well as the "pivot year". The assumption is necessary since the terms "windowing" and "pivot year" are not found in the Dickens specification. The unprocessed database uses two digits to represent year data, see the data in date file 1, an example is the first entry, "991203" which represents  $3^{\rm rd}$  Dec. 1999 [0003]. The symbolic representations are amended by adding either "19" or "20" to represent the 20th and 21st century, respectively [0015]. Note that the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record [0015]. Assuming that the claimed "pivot year" has the common meaning in the art, then the "threshold year" of the reference corresponds to the pivot year. The processing selects a "threshold value" or  $\alpha$  which is "no later" than the earliest year in the database. The threshold value is selected as between  $n_0n_1$ , the smallest 20th Century year and the lower value,  $n_2 n_3$ , which is the maximum value of the 21st Century date range [0011]. Then a comparison is made between the date data, nn, and the threshold value,  $\alpha$ ; if nn >  $\alpha$ , the "19" designator is selected, otherwise "20" is selected. Since the nn may be equal to the "threshold value" (if nn is not >  $\alpha$ , then it is  $\leq$ ) which means

without modifying any of the symbolic representations of dates in the at least one date field of the database for purposes of such windowing and converting;  Storing the converted symbolic representations separate from the at least one date field in the database; and  Storing the converted symbolic representations separate from the at least one date field in the database; and  There is no mention of converting without modifying in either the Dickens specification or file history. Consequently this cannot be used to distinguish the claim from the reference.  Fig. 2 and the table of key file 3 make it clear that the converted data is stored. The meaning to be attributed to "storing separate from the at least one date field of the database" is not clear since there is no such phrase, or anything like it, to be found in the Dickens specification or file history. In any event, this cannot be a basis to distinguish the reference.  Funning a program collectively on the stored, converted symbolic representations to sort or otherwise manipulate the dates represented by the converted symbolic representations,  Separately from the symbolic Since the phrase "running a program to sort separately from the symbolic representations of dates contained in the database.  It is not apparent how "converting" can be effected without "modifying". There is no mention of converting without modifying in either the Dickens specification or file history. Consequently this cannot be used to distinguish the claim from the reference.  Fig. 2 and the table of key file 3 make it clear that the converted specification or file history. The specification or file history.  Sorting is effected without "modifying".  There is no mention of converting without modifying in either the Dickens specification or file history.  There is no mention of converted specification or file history.  There is no mention of converted specification or file history.  There is no mention of converted specification or file history.  There is no mention of con
representations of dates in the at least one date field of the database for purposes of such windowing and converting;  There is no mention of converting without modifying in either the Dickens specification or file history. Consequently this cannot be used to distinguish the claim from the reference.  Storing the converted symbolic representations separate from the at least one date field in the database; and  Fig. 2 and the table of key file 3 make it clear that the converted data is stored. The meaning to be attributed to "storing separate from the at least one date field of the database" is not clear since there is no such phrase, or anything like it, to be found in the Dickens specification or file history. In any event, this cannot be a basis to distinguish the reference.  Sorting is effected without "modifying".  There is no mention of converting without modifying in either the Dickens specification or file history.  Fig. 2 and the table of key file 3 make it clear that the converted data is stored. The meaning to be attributed to "storing separate from the at least one date field of the database" is not clear since there is no such phrase, or anything like it, to be found in the Dickens specification or file history.  Sorting is effected as described in [0006]
representations of dates in the at least one date field of the database for purposes of such windowing and converting;  Storing the converted symbolic representations separate from the at least one date field in the database; and  Storing the converted symbolic representations are presentations of a to distinguish the claim from the at least one date field in the database; and  Storing the converted symbolic representations of a to distinguish the claim from the reference.  Fig. 2 and the table of key file 3 make it clear that the converted data is stored. The meaning to be attributed to "storing separate from the at least one date field of the database" is not clear since there is no such phrase, or anything like it, to be found in the Dickens specification or file history. In any event, this cannot be a basis to distinguish the reference.  Fig. 2 and the table of key file 3 make it clear that the converted data is stored. The meaning to be attributed to "storing separate from the at least one date field of the database" is not clear since there is no such phrase, or anything like it, to be found in the Dickens specification or file history. In any event, this cannot be used to distinguish the reference.  Sorting is effected without "modifying in either the Dickens or file history.  Sorting is effected without "modifying in either the Dickens or file history.  There is no mention of converting without modifying in either the Dickens or file history.  Consequently this cannot be used to distinguish the claim from the reference.  Fig. 2 and the table of key file 3 make it clear that the converted data is stored. The meaning to be attributed to "storing separate from the at least one date field of the database" is not clear since there is no such phrase, or anything like it, to be found in the Dickens or anything like it.
least one date field of the database for purposes of such windowing and converting;  There is no mention of converting without modifying in either the Dickens specification or file history. Consequently this cannot be used to distinguish the claim from the reference.  Storing the converted symbolic representations separate from the at least one date field in the database; and  Fig. 2 and the table of key file 3 make it clear that the converted data is stored. The meaning to be attributed to "storing separate from the at least one date field of the database" is not clear since there is no such phrase, or anything like it, to be found in the Dickens specification or file history. In any event, this cannot be a basis to distinguish the reference.  Sorting is effected as described in [0006]  There is no mention of converting without modifying in either the Dickens specification or file history.  Fig. 2 and the table of key file 3 make it clear that the converted data is stored. The meaning to be attributed to "storing separate from the at least one date field of the database" is not clear since there is no such phrase, or anything like it, to be found in the Dickens specification or file history.  Sorting is effected as described in [0006]
for purposes of such windowing and converting;  without modifying in either the Dickens specification or file history. Consequently this cannot be used to distinguish the claim from the reference.  Storing the converted symbolic representations separate from the at least one date field in the database; and  Fig. 2 and the table of key file 3 make it clear that the converted data is stored. The meaning to be attributed to "storing separate from the at least one date field of the database" is not clear since there is no such phrase, or anything like it, to be found in the Dickens specification or file history. In any event, this cannot be a basis to distinguish the reference.  Funning a program collectively on the stored, converted symbolic representations to sort or otherwise manipulate the dates represented by the converted symbolic representations,
converting;  Dickens specification or file history. Consequently this cannot be used to distinguish the claim from the reference.  Storing the converted symbolic representations separate from the at least one date field in the database; and  Fig. 2 and the table of key file 3 make it clear that the converted data is stored. The meaning to be attributed to "storing separate from the at least one date field of the database" is not clear since there is no such phrase, or anything like it, to be found in the Dickens specification or file history. In any event, this cannot be a basis to distinguish the reference.  Fig. 2 and the table of key file 3 make it clear that the converted data is stored. The meaning to be attributed to "storing separate from the at least one date field of the database" is not clear since there is no such phrase, or anything like it, to be found in the Dickens specification or file history. In any event, this cannot be a basis to distinguish the reference.  Sorting is effected as described in [0006]  For example of the converted symbolic representations to sort or otherwise manipulate the dates represented by the converted symbolic representations,
Consequently this cannot be used to distinguish the claim from the reference.  storing the converted symbolic representations separate from the at least one date field in the database; and  The meaning to be attributed to "storing separate from the at least one date field of the database" is not clear since there is no such phrase, or anything like it, to be found in the Dickens specification or file history. In any event, this cannot be a basis to distinguish the reference.  Sorting is effected as described in [0006]  Trunning a program collectively on the stored, converted symbolic representations to sort or otherwise manipulate the dates represented by the converted symbolic representations,
distinguish the claim from the reference.  storing the converted symbolic representations separate from the at least one date field in the database; and  fig. 2 and the table of key file 3 make it clear that the converted data is stored. The meaning to be attributed to "storing separate from the at least one date field of the database" is not clear since there is no such phrase, or anything like it, to be found in the Dickens specification or file history. In any event, this cannot be a basis to distinguish the reference.  running a program collectively on the stored, converted symbolic representations to sort or otherwise manipulate the dates represented by the converted symbolic representations,
storing the converted symbolic representations separate from the at least one date field in the database; and  The meaning to be attributed to "storing separate from the at least one date field of the database" is not clear since there is no such phrase, or anything like it, to be found in the Dickens specification or file history. In any event, this cannot be a basis to distinguish the reference.  Trunning a program collectively on the stored, converted symbolic representations to sort or otherwise manipulate the dates represented by the converted symbolic representations,
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representations separate from the at least one date field in the database; and  make it clear that the converted data is stored. The meaning to be attributed to "storing separate from the at least one date field of the database" is not clear since there is no such phrase, or anything like it, to be found in the Dickens specification or file history. In any event, this cannot be a basis to distinguish the reference.  running a program collectively on the stored, converted symbolic representations to sort or otherwise manipulate the dates represented by the converted symbolic representations,
least one date field in the database; and  is stored. The meaning to be attributed to "storing separate from the at least one date field of the database" is not clear since there is no such phrase, or anything like it, to be found in the Dickens specification or file history. In any event, this cannot be a basis to distinguish the reference.  running a program collectively on the stored, converted symbolic representations to sort or otherwise manipulate the dates represented by the converted symbolic representations,
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the at least one date field of the database" is not clear since there is no such phrase, or anything like it, to be found in the Dickens specification or file history. In any event, this cannot be a basis to distinguish the reference.  running a program collectively on the stored, converted symbolic representations to sort or otherwise manipulate the dates represented by the converted symbolic representations,  the at least one date field of the database" is not clear since there is no such phrase, or anything like it, to be found in the Dickens specification or file history. In any event, this cannot be a basis to distinguish the reference.  Sorting is effected as described in [0006]
database" is not clear since there is no such phrase, or anything like it, to be found in the Dickens specification or file history. In any event, this cannot be a basis to distinguish the reference.  running a program collectively on the stored, converted symbolic representations to sort or otherwise manipulate the dates represented by the converted symbolic representations,
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clause is in doubt. It is clear,
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however that there is no distinction between this clause of the claim and
between this clause of the claim and

	Reissue application, claim 66  A method of processing dates in a database, comprising the steps of:	Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation] The reference is directed at managing date keys of a data file, [Title The unprocessed database uses two
E P	providing a database with dates stored in at least one date field therein according to a format wherein $M_1M_2$ is the numerical month designator, $D_1D_2$ is the numerical day designator, and $Y_1Y_2$ is the numerical year designator,	digits to represent year data, two digits for month data and two digits for day data, see the data in date file 1, an example is the first entry, "991203" which represents 3 <sup>rd</sup> Dec. 1999 [0003].
	selecting a window with a $Y_AY_B$ value for a pivot date of the window $Y_AY_B$ being no later than the earliest $Y_1Y_2$ year designator in the database;	Assuming that the meaning to be attributed to "pivot date" is the common meaning, then the "threshold value" is the pivot date, which is the same as $Y_AY_B$ . The assumption is necessary since neither the Dickens specification nor file history mentions "pivot date". The "threshold value" or $\alpha$ corresponds to $Y_AY_B$ and it is "no later" than the earliest $Y_1Y_2$ since it is selected as between $n_0n_1$ , the minimum value of the $20^{th}$ Century date range and the lower value, $n_2n_3$ , which is the maximum value of the $21^{st}$ Century date range [0011]
	determining a century designator $C_1C_2$ for each date in the database, $C_1C_2$ having a first value if $Y_1Y_2$ is less than $Y_AY_B$ and having a second value if $Y_1Y_2$ is equal to or greater than $Y_AY_B$ ,	A comparison is made between the date data, nn, and the threshold value, $\alpha$ ; if nn > $\alpha$ , the century designator "19" is used, otherwise, that is if nn $\leq \alpha$ , the other century designator, "20" is used [0015]. Note that the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record [0015].
	reformatting the symbolic representation of each symbolic representation of a date in a portion of the at least one date field in the database, without the addition of any new data field to the database, with the reformatted symbolic representation of each date in the database having the values $C_1C_2$ , $Y_1Y_2$ , $M_1M_2$ , and $D_1D_2$ ; and	The date data, augmented with the century designator (19 or 20), is then written to key file 3; as seen there the date data has been reformatted to add the century designator. That is, we start with $Y_1Y_2M_1M_2D_1D_2$ and append $C_1C_2$ , to end up with $C_1C_2Y_1Y_2M_1M_2D_1D_2$ .
	repeating the step of reformatting until each symbolic representation of a date in the at least one date field has been reformatted in order to facilitate collectively further processing the reformatted symbolic	Since the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015]

representations of each of the	
symbolic representations of each of	
the dates.	

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	Reissue Application, claim 67	Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]
	A method of processing dates in a database, comprising the steps of: providing a database with dates stored in at least one date field therein according to a format wherein Y <sub>1</sub> Y <sub>2</sub> is the numerical year designator; selecting a window with a Y <sub>A</sub> Y <sub>B</sub> value	The reference is directed at managing date keys of a data file, [Title]  The unprocessed database uses two digits to represent year data, see the data in date file 1, an example is the first entry, "991203" which represents 3 <sup>rd</sup> Dec. 1999 [0003].  The "threshold value" or α corresponds
	for a pivot date of the window, $Y_AY_B$ being no later than the earliest $Y_1Y_2$ year designator in the database;	to $Y_A Y_B$ and it is "no later" than the earliest $Y_1 Y_2$ since it is selected as between $n_0 n_1$ , the minimum value of the $20^{th}$ Century and the lower value $n_2 n_3$ , which is the maximum value of the $21^{st}$ Century date range $[0011]$ .
	determining a century designator $C_1C_2$ for each date in the database, $C_1C_2$ having a first value if $Y_1Y_2$ is less than $Y_AY_B$ and having a second value if $Y_1Y_2$ is equal to or greater than $Y_AY_B$ ;	A comparison is made between the date data, nn, and the threshold value, $\alpha$ ; if nn > $\alpha$ , the century designator "19" is used, otherwise, that is if nn $\leq \alpha$ , the other century designator, "20" is used [0015].]. Note that the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record [0015].
	reformatting the symbolic representation of each symbolic representation of a date in a portion off the at least one date field in the database, without the addition of any new data field to the database, with the reformatted symbolic representation of each date in the database having the values $C_1C_2$ , $Y_1Y_2$ ; and	The date data, augmented with the century designator (19 or 20), is then written to key file 3; as seen there the date data has been reformatted to add the century designator. The reference has added two digits, 19 or 20, to represent the century, just as described in the Dickens specification. To the extent this is "without the addition" in the Dickens patent, so too it is in the reference.
	repeating the step of reformatting until each symbolic representation of a date in the at least one date field has been reformatted in order to facilitate collectively further processing the reformatted symbolic representations of each of the symbolic representations of each of the dates.	Since the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015]

of each of the dates.

program" is inherent.

Reissue Application, claim 69	Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]
A method of processing dates in a database, comprising the steps of: providing a database with dates stored in at least one date field therein according to a format wherein Y <sub>1</sub> Y <sub>2</sub> is the numerical year designator; selecting a window with a Y <sub>A</sub> Y <sub>B</sub> value for a pivot year of the window, Y <sub>A</sub> Y <sub>B</sub> being no later than the earliest Y <sub>1</sub> Y <sub>2</sub> year designator in the database:	The reference is directed at managing date keys of a data file, [Title]. The unprocessed database uses two digits to represent year data, see the data in date file 1, an example is the first entry, "991203" which represents $3^{rd}$ Dec. 1999 [0003]. Assuming the term "window" and "pivot year" are given the common definition, then the "threshold value" of the reference corresponds to the beginning of the "window" as well as the "pivot year". The assumption is necessary since the terms "window" and "pivot year" are not found in the Dickens specification. The "threshold value" or $\alpha$ corresponds to $Y_{A}Y_{B}$ and it is "no later" than the earliest $Y_{1}Y_{2}$ since it is selected as between $n_{0}n_{1}$ , the minimum value of the $20^{th}$ Century date range and the lower value, $n_{2}n_{3}$ , which is the maximum value of the $21^{st}$ Century date range [0011]. The value of $\alpha$ defines a window of 10 decades
determining a century designator $C_1C_2$ for each date in the at least one date field of the database, $C_1C_2$ having a first value if $Y_1Y_2$ is less than $Y_AY_B$ and having a second value if $Y_1Y_2$ is equal to or greater than $Y_AY_B$ ;	duration.  A comparison is made between the date data, nn, and the threshold value, $\alpha$ ; if nn > $\alpha$ , the century designator "19" is used, otherwise, that is if nn $\leq \alpha$ , the other century designator, "20" is used [0015]. Since the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015]
reformatting the symbolic representation of each symbolic representation of a date in the at least one date field in the database, without the addition of any new data field to the database with the reformatted symbolic representation of each date in the database having the values $C_1C_2$ , $Y_1Y_2$ ;	The date data, augmented with the century designator (19 or 20), is then written to key file 3; as seen there the date data has been reformatted to add the century designator. The reference has added two digits to represent the century, just as has Dickens, to the extent this is "without the addition" in the Dickens patent, so too it is in the reference.
sorting the reformatted symbolic representations of the dates in the form $C_1C_2Y_1Y_2$ and	Sorting is effected as described in [0006]. Both the reference and the Dickens specification describe sorting on $C_1C_2Y_1Y_2M_1M_2D_1D_2$ .

	The "program" is the purpose for maintaining the file.
the dates.	

Reissue application, claim 70	Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]
A method for representing and utilizing dates stored in at least one date field of a database utilizing symbolic representations of the dates stored in at least one date field of the database, which are in a format that creates ambiguity between dates in each of a pair of adjacent centuries, comprising the steps of converting each of the symbolic representations of dates stored in the at least one date field of the database to a symbolic representation of each of the respective dates that does not create the ambiguity,	The reference is directed at managing date keys of a data file, [Title] which is effected by processing date representations in a database. Each item of data is a symbolic representation. The problem solved by the invention is the inversion in time sequence caused by the use of two digit year indications at the year 2000. [0005]  The unprocessed database uses two digits to represent year data, see the data in date file 1, an example is the first entry, "991203" which represents 3rd Dec. 1999 [0003]. The symbolic representations are amended by adding either "19" or "20" to represent the 20th and 21st century, respectively [0015]. Note also that the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the
by windowing the symbolic representations of each of the respective dates as stored in the at least one date field of the database against a pivot year, with the pivot year being less than or equal to the earliest date represented by the symbolic representation of dates stored in the at least one date field, without the addition of any new data field to the database, and	processing is applied to "each" record [0015]  Assuming the term "window" and "pivot year" are given the common definition, then the "threshold value" of the reference corresponds to the beginning of the "window" as well as the "pivot year". The assumption is necessary since the terms "window" and "pivot year" are not found in the Dickens specification. A threshold value is selected lying between $n_0n_1$ , the smallest $20^{th}$ Century year and the lower value, $n_2n_3$ , which is the maximum value of the $21^{st}$ Century date range [0011]. Then a comparison is made between the date data, nn, and the threshold value, $\alpha$ ; if nn > $\alpha$ , the "19" designator is selected, otherwise "20" is selected. The "threshold value" or pivot year is equal to or less than the earliest nn. The reference has added two digits, 19 or 20, to represent the century, just as is described in the Dickens specification. To the extent this is "without the addition" in the Dickens patent, so too it is in the reference.

without modifying any of the symbolic representations of dates in the at least one date field, for purposes of such windowing and converting and

running a program on the converted symbolic representations of each of the dates to sort or otherwise manipulate the dates represented by the converted symbolic representations, separately from the date data symbolic representations contained in the at least one date

field of the database.

The meaning to be attributed to the phrase "converting ... without modifying ..." is not apparent since there is no such phrase (or anything like it) to be found in either the Dickens specification or the file history. Clearly, however, this phrase does not distinguish from the reference.

Sorting is effected as described in [0006]. Typically sorting is effected by a program and so "running a program ... to sort" is inherent in the reference. Since the phrase "running a program ... to sort ... separately from the date data symbolic representations contained in the at least one date field of the database" is not found either in the Dickens specification or file history, the meaning to be attributed to this clause is in doubt. It is clear, however that there is no distinction between this clause of the claim and the reference.

Reissue application, claim 71

Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]

A method for representing and utilizing dates stored in at least one date field of the database utilizing symbolic representations of the dates stored in the at least one date field of the database, which are in a format that creates ambiguity between dates in each of a pair of adjacent centuries, comprising the steps of

The reference is directed at managing date keys of a data file, [Title] which is effected by processing date representations in a database. Each item of data is a symbolic representation. The problem solved by the invention is the inversion in time sequence caused by the use of two digit year indications at the year 2000. [0005]

converting each of the symbolic representations of dates stored in the at least one date field of the database to a symbolic representation of each of the respective dates that does not create the ambiguity,

The unprocessed database uses two digits to represent year data, see the data in date file 1, an example is the first entry, "991203" which represents 3<sup>rd</sup> Dec. 1999 [0003]. The symbolic representations are amended by adding either "19" or "20" to represent the 20<sup>th</sup> and 21<sup>st</sup> century, respectively [0015]. Note also that the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record [0015]

by windowing the symbolic representations of each of the respective dates as stored in the at least one date field of the database against a pivot year, with the pivot year being less than or equal to the earliest date represented by a symbolic representation of dates stored in the at least one date field, and

Assuming the term "windowing" and "pivot year" are given the common definition, then the "threshold value" of the reference corresponds to the beginning of the "window" as well as the "pivot year". The assumption is necessary since the terms "windowing" and "pivot year" are not found in the The processing Dickens specification. selects a "threshold value" or  $\alpha$  which is "no later" than the earliest year in the database. A threshold value is selected lying between non1, the smallest 20th Century year and the lower value, n<sub>2</sub>n<sub>3</sub>, which is the maximum value of the 21st Century date range [0011]. Then a comparison is made between the date data, nn, and the threshold value,  $\alpha$ ; if nn >  $\alpha$ , the "19" designator is selected, otherwise "20" is selected. This is the process, known to others as "windowing", although not mentioned in the specification. In this process, the "threshold value" is, according to prior art usage, the pivot year. although that term is not found in the

	Dickens specification.
without the addition of any new data field to the database for purposes of such windowing and converting;	The reference has added two digits, 1 or 20, to represent the century, just as is described in the Dickens
	specification. To the extent this is "without the addition" in the Dickens patent, so too it is in the reference.
storing each of the converted symbolic representations of each of the dates separate from the database; and,	The key file 3 represents the stored dates. The meaning to be attributed to "storing separate from the database" is not clear since there is no such phrase, or anything like it, to be found in the Dickens specification or file history. In an event, this cannot be a basis to distinguish the reference.
running a program on the stored converted symbolic representations of each of the converted symbolic representations of the dates to sort or otherwise manipulate the dates represented by the converted symbolic representations,	Sorting is effected as described in [0006]. Typically sorting is effecte by running a program and so this is inherent in the reference.
separately from the date data symbolic representations contained in the at least one date field of the database.	Since the phrase "running a program to sort separately from the date data symbolic representations contained in the at least one date field of the database" is not found either in the Dickens specification of file history, the meaning to be attributed to this clause is in doubt It is clear, however that there is no distinction between this clause of the claim and the reference.

	ssue Application, claim 72	Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]
rep	ethod of processing symbolic resentations of dates stored in a abase, comprising the steps of	The reference is directed at managing date keys of a data file, [Title] which is effected by processing date representations in a database. Each item of data is a symbolic representation
rep the M <sub>1</sub> M <sub>2</sub> des des	ecting a database with symbolic resentations of dates stored rein according to a format wherein is the numerical month ignator, D <sub>1</sub> D <sub>2</sub> is the numerical day ignator, and Y <sub>1</sub> Y <sub>2</sub> is the numerical r designator;	The unprocessed database uses two digits to represent year data, see the data in date file 1, an example is the first entry, "991203" which represents 3 <sup>rd</sup> Dec. 1999 [0003]. The shows the use of two digits for year, month and date.
sel YAYE win ear dat	ecting a 10-decade window with a value for the first decade of the dow being no later than the liest Y <sub>1</sub> Y <sub>2</sub> year designator in the abase;	The "threshold value" or $\alpha$ corresponds to $Y_AY_B$ and it is "no later" than the earliest $Y_1Y_2$ since it is selected as between $n_0n_1$ , the minimum value of the $20^{th}$ Century and the lower value, $n_2n_3$ , which is the maximum value of the $21^{st}$ Century date range [0011]. The text [0010 and 0011] make it clear that the date range is limited "The reason for this is that the data file 1 does not contain the year data '2099' or '1900'." and there is a "minimum value of the year data in the $20^{th}$ century" and a "maximum value of the year data in the $21^{st}$ century" with the "threshold value" in between these two. This is only possible if the span of the data base is 10 decades.
for dat fir and equ	ermining a century designator $C_1C_2$ each symbolic representation of a e in the database, $C_1C_2$ having a st value if $Y_1Y_2$ is less than $Y_AY_B$ having a second value if $Y_1Y_2$ is lal to or greater than $Y_AY_B$ ; and,	A comparison is made between the date data, nn, and the threshold value, $\alpha$ ; if nn > $\alpha$ , the century designator "19" is used, otherwise, that is if nn $\leq \alpha$ , the other century designator, "20" is used [0015]. Note also that the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015]
rep rep dat M <sub>1</sub> M fur con	ormatting the symbolic presentation of each symbolic presentation of a date in the cabase with the values $C_1C_2$ , $Y_1Y_2$ , $P_1D_2$ prior to collectively ther processing information processing the database sociated with the respective dates.	The date data, augmented with the century designator (19 or 20), is then written to key file 3; as seen there the date data has been reformatted to add the century designator.  Thereafter the database is used for its intended purpose.

	Reissue application, claim 73	Japan 06-103133, April 15, 1994
		[Citations are to the paragraph
		numbers in the text of both the
		Japanese publication and in the
		translation]
	A method of processing symbolic	The reference is directed at managing
	representations of dates stored in a	date keys of a data file, [Title] which
	database comprising the steps of	is effected by processing date
		representations in a database. Each
		item of data is a symbolic
	·	representation
ŀ	providing a database with symbolic	The unprocessed database uses two
-	representations of dates stored	digits to represent year data, see the
	therein according to a format wherein	data in date file 1, an example is the
ł	$Y_1Y_2$ is the numerical year designator,	first entry, "991203" which represents
	all of the symbolic representations of	3 <sup>rd</sup> Dec. 1999 [0003]. The text [0010
-	dates falling within a 10-decade	and 0011] make it clear that the date
	period of time;	range is limited "The reason for this
1	period of time;	is that the data file 1 does not
		contain the year data '2099' or
		'1900'" and there is a "minimum value
		of the year data in the 20 <sup>th</sup> century"
ł		and a "maximum value of the year data
3		in the 21 <sup>st</sup> century" with the
3		"threshold value" in between these
7		
≟		two. This is only possible if the
		span of the data base is less than 10
mall Ban		decades.
	selecting a 10-decade window with a	The "threshold value" or α corresponds
1	$Y_AY_B$ value for the first decade of the	to YAYB and it is "no later" than the
4	window, $Y_AY_B$ being no later than the	earliest Y <sub>1</sub> Y <sub>2</sub> since it is selected as
-	earliest $Y_1Y_2$ year designator in the	between $n_0n_1$ , the minimum value of the
ᡱ │	database;	20 <sup>th</sup> Century and the lower value, n <sub>2</sub> n <sub>3</sub> ,
i.		which is the maximum value of the 21 <sup>st</sup>
<u> </u>		Century date range [0011].
H	determining a century designator C <sub>1</sub> C <sub>2</sub>	A comparison is made between the date
: =,	for each symbolic representation of a	data, nn, and the threshold value, $\alpha$ ;
<u> </u>	date in the database $C_1C_2$ having a	if nn > $\alpha$ , the century designator "19"
اق	first value if $Y_1Y_2$ is less than $Y_AY_B$	is used, otherwise, that is if $nn \le \alpha$ ,
	and having a second value if $Y_1Y_2$ is	the other century designator, "20" is
	equal to or greater than $Y_AY_B$ and,	used [0015]. Note also that the
		processing is applied to "the
i		successive records of data file 1 and
		terminates when the last record is
		processed", i.e., the processing is
		applied to "each" record. [0015]
	referratting the symbolic	The date data, augmented with the
	reformatting the symbolic	century designator (19 or 20), is then
	representation of the date with the	written to key file 3; as seen there
	values C <sub>1</sub> C <sub>2</sub> , Y <sub>1</sub> Y <sub>2</sub> , to facilitate	the date data has been reformatted to
	further processing of the dates.	add the century designator.

Reissue application, claim 74  A method of processing dates in a database, comprising the steps of providing a database with symbolic	Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation] The reference is directed at managing date keys of a data file, [Title] which is effected by processing date representations in a database. The unprocessed database uses two digits to represent year data, see the
representations of dates stored therein according to a format wherein Y <sub>1</sub> Y <sub>2</sub> is the numerical year designator, all of symbolic representations of dates falling within a 10-decade period of time;	data in date file 1, an example is the first entry, "991203" which represents 3 <sup>rd</sup> Dec. 1999 [0003]. The text [0010 and 0011] make it clear that the date range is limited "The reason for this is that the data file 1 does not contain the year data '2099' or '1900'" and there is a "minimum value of the year data in the 20 <sup>th</sup> century" and a "maximum value of the year data in the 21 <sup>st</sup> century" with the "threshold value" in between these two. This is only possible if the span of the data base is less than 10 decades.
selecting a 10-decade window with a $Y_AY_B$ value for the first decade of the window $Y_AY_B$ being no later than the earliest $Y_1Y_2$ year designator in the database;	The "threshold value" or $\alpha$ corresponds to $Y_AY_B$ and it is "no later" than the earliest $Y_1Y_2$ since it is selected as between $n_0n_1$ , the minimum value of the $20^{th}$ Century years and the lower value, $n_2n_3$ , which is the maximum value of the $21^{st}$ Century years [0011].
determining a century designator $C_1C_2$ , for each date in the database, $C_1C_2$ having a first value if $Y_1Y_2$ is less than $Y_AY_B$ and having a second value if $Y_1Y_2$ is equal to or greater than $Y_AY_B$ ;	A comparison is made between the date data, nn, and the threshold value, $\alpha$ ; if nn > $\alpha$ , the century designator "19" is used, otherwise, that is if nn $\leq \alpha$ , the other century designator, "20" is used [0015]. Note also that the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015]
reformatting each date in the form $C_1C_2Y_1Y_2$ to facilitate further processing of the dates; and,	The date data, augmented with the century designator (19 or 20), is then written to key file 3; as seen there the date data has been reformatted to add the century designator. Strictly speaking the reference describes the data format C <sub>1</sub> C <sub>2</sub> Y <sub>1</sub> Y <sub>2</sub> M <sub>1</sub> M <sub>2</sub> D <sub>1</sub> D <sub>2</sub> not C <sub>1</sub> C <sub>2</sub> Y <sub>1</sub> Y <sub>2</sub> . However, the Dickens specification has the same disclosure so there can be no distinction between the claim and the reference.

sorting the dates in the form $C_1C_2Y_1Y_2$ .	Sorting is effected [0012] on the
	reformatted data. Both the reference
	and the Dickens specification describe
	sorting on the C <sub>1</sub> C <sub>2</sub> Y <sub>1</sub> Y <sub>2</sub> M <sub>1</sub> M <sub>2</sub> D <sub>1</sub> D <sub>2</sub> date
	data, thus this recitation cannot
	distinguish from the reference.

	Reissue Application, claim 75	Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]
	A method of processing symbolic representations of dates stored in a database, comprising the steps of	The reference is directed at managing date keys of a data file, [Title] which is effected by processing date representations in a database. Each item of data is a symbolic representation
	providing a database with symbolic representations of dates stored therein according to a format wherein $M_1M_2$ is the numerical month designator, $D_1D_2$ is the numerical day designator, and $Y_1Y_2$ is the numerical year designator;	The unprocessed database uses two digits to represent year data, see the data in date file 1, an example is the first entry, "991203" which represents 3 <sup>rd</sup> Dec. 1999 [0003], showing the use of two digits for year, month and day.
	selecting a window with a $Y_AY_B$ value for a pivot date of the window, $Y_AY_B$ being no later than the earliest $Y_1Y_2$ year designator in the database:	The "threshold value" or $\alpha$ corresponds to $Y_AY_B$ and it is "no later" than the earliest $Y_1Y_2$ since it is selected as between $n_0n_1$ , the minimum value of the $20^{th}$ Century years and the lower value $n_2n_3$ , which is the maximum value of the $21^{st}$ Century years [0011]. The "threshold value" of the reference corresponds to the prior art term "pivot date", although that term is not found in the Dickens specification or file history.
	determining a century designator $C_1C_2$ for each symbolic representation of a date in the database, $C_1C_2$ having a first value if $Y_1Y_2$ is less than $Y_AY_B$ and having a second value if $Y_1Y_2$ is greater than $Y_AY_B$ ; and	A comparison is made between the date data, nn, and the threshold value, $\alpha$ ; if nn > $\alpha$ , the century designator "19" is used, otherwise, that is if nn $\leq \alpha$ , the other century designator, "20" is used [0015]. Note also that the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing is applied to "each" record. [0015]
	reformatting the symbolic representation of each symbolic representation of a date in the database, without the addition of any new data field to the database, with the reformatted symbolic representation of each date in the database having the values $C_1C_2$ , $Y_1Y_2$ , $M_1M_2$ , $D_1D_2$ in order to facilitate further processing of the reformatted symbolic representations, of each of the symbolic representations of each of the dates.	The date data, augmented with the century designator (19 or 20), is then written to key file 3; as seen there the date data has been reformatted to add the century designator. Inasmuch as the unprocessed database had used Y <sub>1</sub> Y <sub>2</sub> , M <sub>1</sub> M <sub>2</sub> , D <sub>1</sub> D <sub>2</sub> , the addition of "19" or "20" meets the requirement of having the values C <sub>1</sub> C <sub>2</sub> , Y <sub>1</sub> Y <sub>2</sub> , M <sub>1</sub> M <sub>2</sub> , D <sub>1</sub> D <sub>2</sub> to facilitate further processing. The reference has added two digits to represent the century, just as in the Dickens specification. If this Diclkens specification supports the claimed feature of "without the

addition of any new data field to the
database" then that feature is
anticipatedin the reference.

į	Reissue Application, claim 76	Japan 06-103133, April 15, 1994 [Citations are to the paragraph numbers in the text of both the Japanese publication and in the translation]
	A method of processing dates in a database, comprising the steps of	The reference is directed at managing date keys of a data file, [Title] which is effected by processing date representations in a database.
	providing a database with dates stored therein according to a format wherein $M_1M_2$ is the numerical month designator, $D_1D_2$ is the numerical day designator, and $Y_1Y_2$ is the numerical year designator;	The unprocessed database uses two digits to represent year data, two digits for month data and two digits for day, see the data in date file 1, an example is the first entry, "991203" which represents 3 <sup>rd</sup> Dec. 1999 [0003]
	selecting a window with a $Y_AY_B$ value for a pivot date of the window, $Y_AY_B$ being no later than the earliest $Y_1Y_2$ year designator in the database;  determining a century designator $C_1C_2$ for each date in the database, $C_1C_2$ having a first value if $Y_1Y_2$ is less than $Y_AY_B$ and having a second value if $Y_1Y_2$ is equal to or greater than $Y_AY_B$ ;	The "threshold value" or $\alpha$ corresponds to $Y_AY_B$ and it is "no later" than the earliest $Y_1Y_2$ since it is selected as between $n_0n_1$ , the minimum value of the $20^{th}$ Century and the lower value, $n_2n_3$ , which is the maximum value of the $21^{st}$ Century date range [0011]. The "threshold value" of the reference corresponds to the prior art term "pivot date", although that term is not found in the Dickens specification or file history.  A comparison is made between the year date data, nn, and the threshold value, $\alpha$ ; if nn > $\alpha$ , the century designator "19" is used, otherwise, that is if nn $\leq \alpha$ , the other century designator, "20" is used [0015]. Note also that the processing is applied to "the successive records of data file 1 and terminates when the last record is processed", i.e., the processing
	reformatting the symbolic representation of each symbolic representation of a date in the database, without the addition of any new data field to the database, with the reformatted symbolic representation of each date in the database having the values $C_1C_2$ , $Y_1Y_2$ , $M_1M_2$ , and $D_1D_2$ , in order to facilitate further processing of the reformatted symbolic representations of each of the symbolic representations of each of the dates; and	is applied to "each" record. [0015]  The date data, augmented with the century designator (19 or 20), is then written to key file 3; as seen there the date data has been reformatted to add the century designator. Inasmuch as the unprocessed database had used Y <sub>1</sub> Y <sub>2</sub> , M <sub>1</sub> M <sub>2</sub> , D <sub>1</sub> D <sub>2</sub> , the addition of "19" or "20" meets the requirement of having the values C <sub>1</sub> C <sub>2</sub> , Y <sub>1</sub> Y <sub>2</sub> , M <sub>1</sub> M <sub>2</sub> , D <sub>1</sub> D <sub>2</sub> to facilitate further processing.
		Sorting is effected [0012] using the full, 8 digit dates as specified.

Reissue Application	Shaughnessy US Patent 5,630,118
1. A method of processing symbolic representations of dates stored in a database, comprising the steps of	The disclosed software assigns a century value to a two digit year date (7/6+), which is processing of
providing a database with symbolic representations of dates stored therein according to a format wherein	Symbolic dates  One format which can form an input is  YYMMDD, see Date Type "B" in the appendix at col.18,
$M_1M_2$ is the numerical month designator, $D_1D_2$ is the numerical day designator, and $Y_1Y_2$ is the numerical year designator, all of the symbolic representations of dates falling within a 10-decade period of time;	This processing is limited to dates which span 100 years, see below
selecting a 10-decade window with a $Y_AY_B$ value for the first decade of the window $Y_AY_B$ being no later than the earliest $Y_1Y_2$ year designator in the database;	software "determine[s] end of current 100 year cycle", step 16, fig. 2, 3 or 4, as the "end" of the 100 year range, the "end" year is one less than the beginning (if "37" is the last year of a 100 year period, "38" is the first year of the same period), the "end" year is no later than any date in the data base as claimed
determining a century designator $C_1C_2$ for each symbolic representation of a date in the database, $C_1C_2$ having a first value if $Y_1Y_2$ is less than $Y_AY_B$ and having a second value if $Y_1Y_2$ is equal to or greater than $Y_AY_B$ ; and	the century designator is determined by comparing two digit representation to the end of the 100 year cycle date, if the year being processed is greater, then the earlier century value is assigned and vice versa; (col. 7, lines 5-15)
reformatting the symbolic representation of the date with the values $C_1C_2$ , $Y_1Y_2$ , $M_1M_2$ , and $D_1D_2$ to facilitate further processing of the dates.	the reformatting is described at 2/30-32; 6/57-

Reissue Application  2. The method of claim 1, wherein the 10-decade window includes the decade beginning in the year 2000.  3. The method of claim 2, wherein the step of determining includes the step of determining the first value as 20 and the second value as 19.  4. The method of claim 1, including an	Shaughnessy 5,630,118  Shaughnessy is directed to Y2K and by definition propose a window which includes the year 2000  Shaughnessy is directed to Y2K and by definition propose century designator
10-decade window includes the decade beginning in the year 2000.  3. The method of claim 2, wherein the step of determining includes the step of determining the first value as 20 and the second value as 19.	definition propose a window which includes the year 2000 Shaughnessy is directed to Y2K and by definition propose century designator
beginning in the year 2000.  3. The method of claim 2, wherein the step of determining includes the step of determining the first value as 20 and the second value as 19.	includes the year 2000 Shaughnessy is directed to Y2K and by definition propose century designator
3. The method of claim 2, wherein the step of determining includes the step of determining the first value as 20 and the second value as 19.	Shaughnessy is directed to Y2K and by definition propose century designator
step of determining includes the step of determining the first value as 20 and the second value as 19.	definition propose century designator
of determining the first value as 20 and the second value as 19.	
and the second value as 19.	
and the second value as 19.  4. The method of claim 1, including an	19 and 20
4. The method of claim 1, including an	
	Shaughnessy suggest a further sorting
additional step, after the step of	operation or an operation equivalent
reformatting, of sorting the symbolic	to sorting. Shaughnessy describes dat
representations of dates.	comparisons (col 4, lines 37-62, col.
	8, line 33-col. 12, line 19
5. The method of claim 1, wherein the	Shaughnessy uses this format, see 6/5
step of reformatting includes the step	
of reformatting each symbolic	
representation of a date into the	
format $C_1C_2Y_1Y_2M_1M_2D_1D_2$ .	
6. The method of claim 5, including an	Shaughnessy teaches using the
additional step, after the step of	reformatted data for a date
reformatting, of sorting the symbolic	comparisons, see (col 4, lines 37-62,
representations of dates using a	col. 8, line 33-col. 12, line 19).
numerical-order sort.	This is equivalent to sorting
7. The method of claim 1, wherein the	
step of providing a database includes	
the step of	
Í	
converting pre-existing date	Shaughnessy teaches a host of date
information having a different format	formats (appendix in col. 18) and
into the format wherein M.sub.1	indicates they can be converted to the
M.sub.2 is the numerical month	format using M, D and Y variables as
designator, D.sub.1 D.sub.2 is the	claimed, see col. 8, lines 18-27.
numerical day designator and Y.sub.1	
Y.sub.2 is the numerical year	
designator	
converting pre-existing date information having a different format into the format wherein M.sub.1 M.sub.2 is the numerical month designator, D.sub.1 D.sub.2 is the numerical day designator and Y.sub.1 Y.sub.2 is the numerical year designator.	

ſ	Reissue Application	Shaughnessy US Patent 5630118
ŀ	11. A method of processing dates in a	The disclosed software assigns a
	database, comprising the steps of	century value to a two digit year date
	database, compared y	(7/6+) which is processing of dates
ŀ	providing a database with dates stored	One format which can form an input is
ļ	therein according to a format wherein	YYMMDD, see Date Type "B" in the
	M <sub>1</sub> M <sub>2</sub> is the numerical month	appendix at col.18,
	designator, $D_1D_2$ is the numerical day	
	designator, and $Y_1Y_2$ is the numerical	_
	year designator, all of dates falling	This processing is limited to dates
	within a 10-decade period of time	which span 100 years, i.e., a 10-
	which includes the decade beginning in	decade period (see below)
	the year 2000;	
İ	selecting a 10-decade window with a	software "determine[s] end of current
	YAYB value for the first decade of the	100 year cycle", step 16, fig. 2, 3 or
	window, YAYB being no later than the	4, as the "end" of the current cycle
	earliest Y <sub>1</sub> Y <sub>2</sub> year designator in the	it is also at least as "early" as any
l	database;	date in the database, for example, if
		"37" were the end of the 100 year
		period, then "38" would be the beginning and either "37" or "38" would
1		be no later than any date in the
		range, as claimed,
	1	a century designator is determined by
4	determining a century designator C <sub>1</sub> C <sub>2</sub>	comparing a two digit year
	for each date in the database, $C_1C_2$	representation to the end of the 100
	having a first value if $Y_1Y_2$ is less than $Y_AY_B$ and having a second value if	year cycle date, if it is greater,
TU.	$Y_1Y_2$ is equal to or greater than $Y_AY_B$ ;	then the earlier century value is
uii	Y <sub>1</sub> Y <sub>2</sub> is equal to of greater than T <sub>A</sub> T <sub>B</sub> ,	assigned and vice versa; (col. 7,
4		lines 8-13)
M	reformatting each date in the form	the reformatting is described at 2/30-
=	$C_1C_2Y_1Y_2M_1M_2D_1D_2$ to facilitate further	32 and 6/57-
	processing of the dates; and	
-	sorting the dates in the form	sorting is a well known operation for
	$C_1C_2Y_1Y_2M_1M_2D_1D_2$ .	the date comparison described at 1/26
	-1-2-1-2-1-2	and at column 8

Reissue Application	Shaughnessy 5,630,118
12. The method of claim 11, wherein the step of providing a database includes the step of	
converting pre-existing date information having a different format into the format wherein M <sub>1</sub> M <sub>2</sub> is the numerical month designator, D <sub>1</sub> D <sub>2</sub> is the numerical day designator and Y <sub>1</sub> Y <sub>2</sub> is the numerical year designator.  15. The method of claim 14, including the additional step, after the step of sorting, of manipulating information in the database having the reformatted date therein.	Shaughnessy teaches a host of date formats which can be converted to the format using M, D and Y variables as claimed, see the appendix at column 18, the conversion among these formats is taught at column 8, lines 18-27  Data bases are used for accessing and using the stored information - thus manipulating database information is inherent in any database, including Shaughnessy.

Reissue Application, claim 16 Shaughnessy 5,630,118 The disclosed software assigns a 16. A method of processing century value to a two digit year date symbolic representations of dates (7/6+), which is processing of stored in a database, comprising symbolic dates the steps of: One format which can form an input is providing a database with symbolic YYMMDD, see Date Type "B" in the representations of dates stored appendix at col.18, therein according to a format wherein  $M_1M_2$  is the numerical month designator D<sub>1</sub>D<sub>2</sub> is the numerical day designator, and Y1Y2 is the numerical year designator, all of This processing is limited to dates the symbolic representations of which span 100 years, see below dates falling within a 10-decade period of time; software "determine[s] end of current selecting a window with a YAYB 100 year cycle", step 16, fig. 2, 3 or value for a pivot date of the 4, as the "end" of the 100 year range, window, YAYB being no later than the "end" year is one less than the the earliest year designator in beginning (if "37" is the last year of the database; a 100 year period, "38" is the first year of the same period), the "end" year is no later than any date in the data base as claimed the century designator is determined determining a century designator by comparing two digit representation U#C₁C₂ for each symbolic to the end of the 100 year cycle date, representation of a date in the if the year being processed is database, C1C2 having a first value greater, then the earlier century if  $Y_1Y_2$  is less than  $Y_AY_B$  and having value is assigned and vice versa; a second value if  $Y_1Y_2$  is equal to (col. 7, lines 5-15) + or greater than  $Y_AY_B$  and; the reformatting is described at 2/30reformatting the symbolic 32; 6/57representation of each symbolic representation of a date in the While Shaughnessy adds two digits to database, without the addition of the YYMMDD data, this is the same as any new data field to the database the only Dickens disclosure and so with the reformatted symbolic this clause cannot distinguish the representation of each date in the reference database having the values  $C_1C_2\,,\ Y_1Y_2$  ,  $\mbox{M}_1\mbox{M}_2$  and  $\mbox{D}_1\mbox{D}_2,$  in order to facilitate collectively further processing the reformatted symbolic representations of each of the symbolic representations of each of the dates. Shaughnessy teaches a host of date 22. The method of claim 16, formats (appendix in col. 18) and wherein the step of providing a indicates they can be converted to the database includes the step of format using M, D and Y variables as converting pre-existing date claimed, see col. 8, lines 18-27. information having a different format into the format wherein  $M_1M_2$ is the numerical month designator,  $D_1D_2$  is the numerical day

designator and  $Y_1Y_2$  is the numerical year designator.

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	Reissue application, claim 26	Shaughnessy 5,630,118
	A method of processing dates in a database, comprising the steps of:	The disclosed software assigns a century value to a two digit year date (7/6+), which is processing of symbolic dates
	providing a database with dates stored therein according to a format wherein $M_1M_2$ is the numerical month designator, $D_1D_2$ is the numerical day designator, and $Y_1Y_2$ is the numerical year	One format which can form an input is YYMMDD, see Date Type "B" in the appendix at col.18,
	designator, all of the symbolic representations of dates falling within a 10-decade period of time; selecting a window with a YAYB value	This processing is limited to dates which span 100 years, see below software "determine[s] end of current
	for a pivot date of the window, $Y_AY_B$ being no later than the earliest $Y_1Y_2$ year designator in the database;	100 year cycle", step 16, fig. 2, 3 or 4, as the "end" of the 100 year range, the "end" year is one less than the beginning (if "37" is the last year of a 100 year period, "38" is the first year of the same period), the "end" year is no later than any date in the data base as claimed
	determining a century designator $C_1C_2$ for each date in the database, $C_1C_2$ having a first value if $Y_1Y_2$ is less than $Y_AY_B$ and having a second value if $Y_1Y_2$ is equal to or greater than $Y_AY_B$	the century designator is determined by comparing two digit representation to the end of the 100 year cycle date, if the year being processed is greater, then the earlier century value is assigned and vice versa; (col. 7, lines 5-15)
	reformatting the symbolic representation of each symbolic representation of a date in the database $_1$ without the addition of any new data field to the database with the reformatted symbolic representation of each date in the database having the values $C_1C_2$ , $Y_1Y_2$ , $M_1M_2$ and $D_1D_2$ , in order to facilitate collectively further processing, the reformatted symbolic representations of each of the symbolic representations of each of the dates; and	the reformatting is described at 2/30-32; 6/57 While Shaughnessy adds two digits to the YYMMDD data, this is the same as the only Dickens disclosure and so this clause cannot distinguish the reference
	sorting the dates in the form $C_1C_2Y_1Y_2M_1M_2D_1D_2.$	sorting is a well known operation for the date comparison described at 1/26 and at column 8
	27. The method of claim 26, wherein the step of providing a database includes the step of:	
	converting pre—existing date information having a different format into the format wherein $M_1M_2$ is the numerical month designator, $D_1D_2$ is the numerical day designator and $Y_1Y_2$ is the numerical year designator.	Shaughnessy teaches a host of date formats (appendix in col. 18) and indicates they can be converted to the format using M, D and Y variables as claimed, see col. 8, lines 18-27.

